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Dispharynxiasis in a Captive Princess Parrot

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ABSTRACT: The acuariid nematode *Dispharynx nasuta* was found in a princess parrot, *Polytelis alexandrae*, at the National Aviary in Pittsburgh (Pennsylvania, USA). This is the first report of *D. nasuta* from the host order Psittaciformes, and was the presumed cause of death in this parrot.

Key words: Case report, *Dispharynx nasuta*, new host, *Polytelis alexandrae*, princess parrot, record.

An adult male princess parrot, *Polytelis alexandrae* (Aves: Psittaciformes: Psittacidae) was received at the National Aviary in Pittsburgh (Allegheny County, Pennsylvania, USA) from a private collector on 17 September 1991. Approximately 16 mo after its arrival, the bird began to exhibit signs of debilitation and wasting thought to be due to a confirmed gastrointestinal helminth infection. Numerous anthelmintic regimes were implemented over a period of time, but all proved unsuccessful. The bird's clinical condition continued to deteriorate. It was unresponsive to therapeutic intervention, and after approximately 90 days from the onset of clinical signs, the bird became severely debilitated and died on 27 April 1993. This host specimen was deposited in the Carnegie Museum of Natural History (Section of Birds, Pittsburgh, Pennsylvania; catalog number S-15071, accession number 35664).

Necropsy revealed large numbers of a single species of acuariid nematode firmly attached to the proventricular mucosa. Twelve specimens were provided for preliminary identification and assigned to the genus *Dispharynx*. Subsequent to this generic assignment, the specimens (four male, eight female) were specifically identified as *D. nasuta* (Nematoda: Acuariidae). All remaining specimens were formalin fixed in situ, and embedded in paraffin for histological sectioning. Nematodiasis was the only significant post-mortem finding. All other organs were normal, on gross and histological examination. Additionally, there was no evidence of gastric inflammation, papillomatous proliferation, or necrosis which is often associated with severe infections of *D. nasuta*. Despite this, the large number of parasites may have been sufficient to have caused nutritional compromise, debilitation, and subsequent death of this host.

Helminths were placed in 10% buffered formalin and stored in 70% ethyl alcohol. Specimens were cleared by the ethyl alcohol-glycerin evaporation technique, examined as temporary slide mounts in glycerin, and deposited in the United States National Parasite Collection (USDA, Beltsville, Maryland, USA; accession number 87067).

Dispharynx nasuta has been described in numerous avian hosts; these are primarily from the Columbiformes, Galliformes and Passeriformes (Goble and Kutz, 1945; Baruš and Garrido, 1968; Baruš, 1969; Rickard, 1985; Silva et al., 1990). Additional reports of *D. nasuta* from other avian orders include isolated records from the Anseriformes (Wang and Liew, 1991), Charadriiformes (Eckman, 1968), Ciconiiformes (Gupta and Kumar, 1978), Cuculiformes (Macko et al., 1981), Falconiformes (Gupta and Kumar, 1978; Samedov, 1978), Gruiformes (Forrester et al., 1974, 1975), and Piciformes (Baruš, 1971; Bolette, 1998). The present report of *D. nasuta* from *P. alexandrae* is the first from the host order Psittaciformes.

This infection of *D. nasuta* in *P. alexandrae* occurred opportunistically within a captive situation, and was the presumed cause of death in this host. Morbidity and (or) mortality attributed to *D. nasuta* infections have been previously reported from hosts of the Columbiformes (Hwang

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et al., 1961; Lindquist and Strafuss, 1980); and from the Passeriformes and Galliformes (Allen, 1924; Cram, 1928; Goble and Kutz, 1945; Jensen, 1962).

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