Parasitic Arthropods of Bushbabies

*(Galago Senegalensis* and *G. Crassicaudatus*)

Recently Imported to the U.S.A.

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Ectoparasites and other arthropod parasites of captive bushbabies are poorly documented. Kohn & Haines (1982) did not record parasitic arthropods from bushbabies in their treatment of prosimian diseases. In their native Africa the bushbabies *Galago senegalensis* and *G. demidovii* are occasionally infested by the polyplacid sucking louse, *Lemurphthirus galagus*, whereas the bushbabies *G. senegalensis*, *G. demidovii* and *G. crassicaudatus* have been recorded as hosts for the congeneric *Lemurphthirus stigmus* (e.g., Bedford, 1927; Ferris, 1954; Kim & Emerson, 1970, 1973). Similarly, the mites *Lemurnyssus galagoensis* and *Galagoles congolensis* have been recorded from *G. senegalensis* in Africa (Fain, 1957, 1963). Larval and nymphal stages of linguatulid (pentastomid) tongue worms parasitize many vertebrates in this region with little host specificity.

Breeding colonies of bushbabies (*G. senegalensis* and *G. crassicaudatus*) maintained at Vanderbilt University Medical Center (V.U.M.C.) are typically parasite-free, so that any supplemental animals received from wild stock must be quarantined and checked for infections or infestations prior to incorporation with these colonies. Most wild-caught bushbabies generally appear to be free of parasitic arthropods on arrival at the V.U.M.C. facilities, but some interesting cases recorded there warrant documentation.

On 9 November, 1983, 10 adult female *G. senegalensis* recently imported from Kenya were received at the above-mentioned facilities and were examined on arrival under quarantine conditions. All animals were generally in poor physical condition and louse eggs (nits) were recorded on six of them; these were cemented to pelage underfur hairs as is fairly typical for sucking lice (Anoplura). Nit densities were heavy (c. 500 nits per animal) on two of these animals and much lighter (10-50 nits each) on the other four infested animals. No lice were recorded. Microscopic examination of samples of these nits revealed that they had hatched previously (hatched, empty, louse eggs often remain attached to their host hair until the next host pelage molt). Although there are presently no identification keys to the vast majority of louse eggs, it seems very likely that the louse genus involved was *Lemurphthirus* since other genera do not normally occur on bushbabies.

On 21 November, 1983, 10 adult *G. crassicaudatus* (five males, five females) recently imported from Tanzania were received. All appeared to be in good health on arrival. On 14 January, 1984, however, one of the adult females died. Routine autopsy revealed the presence of about 60 encysted tongue worm nymphs belonging to the genus *Armillifer*. The species involved cannot be ascertained since the worms were not cultured to adults but they appear to be *A. armillatus*. The serosal surfaces of the abdominal viscera supported most cysts but some were located inside the liver lobes, spleen, diaphragm, and one lung. Although spectacular, these nymphs did not appear to have contributed to the death of this animal. *Armillifer* spp. tongue worms typically utilize snakes (particularly pythons) as definitive hosts where they invade the lungs, trachea and nasal passages. Eggs are released by adult worms in these sites and become attached to the surrounding vegetation via the nasal secretions of the snake. Other vertebrates (notably mammals) may ingest these...
eggs during foraging activities and act as intermediate hosts (as in the present infestation). Eggs hatch into larvae in the gut of the intermediate host and then penetrate its intestinal mucosa eventually molting to nymphs prior to encystment in the viscera. Transmission to the definitive snake host occurs when the intermediate host or its infested organs are consumed by these predators (Cheng, 1974).

References


