microphytophagous species feeding on lower plant elements like fungal cushions, help in disseminating their spores in different soil layers (Haq, 1996). Effect of feeding by panphytophagous species appeared to be a combination of the above two as they assisted biodegradation by direct feeding on plant litter and indirectly by microbial activation. Luxton (1972) noted panphytophages as twice active as macrophytophages in processing dead organic material. Therefore, it can be concluded that combined activity of these three different feeding categories accelerated decomposition rate of organic litter.

Macrophytophagous oribatid mites were equipped with gnathal appendages which enabled effective trituration of large and hard food particles. Arrangement of gnathal appendages in microphytophagous species allowed only small particles to be consumed while pahphytophagous species possessed an intermedate organization of gnathal appendages.

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Balantidium and *Toxocara* infection in lion (*Panthera leo*) - a case report

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An 18-year old male lion "Amar" belonging to Siddharth Municipal Council Zoo Garden, Aurangabad (Maharashtra) was reported ill by the zoo authority. Clinical examination revealed dullness, depressed appetite, lethargy, epiphora, and loose faeces since three days. On clinical evaluation, the lion showed normal body temperature (102°F), tachycardia (heart rate 85/min.) and mild dehydration. The lion was secured in a squeeze cage and faecal and urine samples were collected for laboratory examination; blood sample from the coccygeal vein.

The coprological examination indicated heavy infection of intestinal protozoa - *Balantidium coli* and *Toxocara* sp. and mild strongyles infestations. Urine analysis revealed turbid appearance, positive for reducing sugar and presence of very large number of lipid droplets - Lipuria (adiposuria) on microscopic examination (Sastry, 2001). Haemogram indicated significant neutrophilia and eosionophilia.

The lion was treated with an antiprotozoan drug Metronidazole (Inj. Metrogyl) @ 20mg/kg b.w., b.i.d., i/v, Fenbendazole (Tab. Fentas) @ 40mg/kg b.w., orally, Dextrose (20%) and electrolyte rich infusion (Inj. Rintose) - 500ml i/v, an antibiotic Ampicillin - Cloxacillin (Inj. AC - Vet) 2gm i/m, Inj. Soda-bi-carb (7.5%) - 20ml i/v, Vit. B1, B6 & B12 (Inj Tribivet) - 8ml i/m and Antihistamine (Inj. Anistamin) 8ml i/m. The therapeutic regimen was continued for three consecutive days. The lion recovered on the fifth day of therapy and resumed normal appetite and physical activity.

Presence of parasites in the faeces and considering the success of antiparasitic treatment it can be concluded that the lion was suffering with clinical parasitosis. Zoo animals, especially canids, felids and ursids do not develop immunity and may become reinfected for the ascarids as compared to wild carnivores (Abdel-Rasoul & Fowler, 1980). Canines and felines are prone to nephro- and hepatopathy as compared to other animals (Fowler, 1993). Abnormal constituents in urine, particularly lipuria could be attributed to improper fat metabolism consequent to hepatopathy and nephropathy triggered by chronic parasitism. Balantidium with concurrent infection of *Toxocara* sp. resulted in the clinical illness.

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