



## **GASTRIC SQUAMOUS TUMOR IN THE STOMACH OF A PADEMELON (*Thylogale billardieri*) ASSOCIATED WITH AN INFESTATION WITH *Labiostrongylus* SP. LARVAE**

Author: MUNDAY, B. L.

Source: Journal of Wildlife Diseases, 7(2) : 125

Published By: Wildlife Disease Association

URL: <https://doi.org/10.7589/0090-3558-7.2.125>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

## GASTRIC SQUAMOUS TUMOR IN THE STOMACH OF A PADEMELON (*Thylogale billardieri*) ASSOCIATED WITH AN INFESTATION WITH *Labiostrongylus* SP. LARVAE

B. L. MUNDAY, Mount Pleasant Laboratories, P.O. Box 46, Launceston South, Tasmania, Australia

It has been suggested that epithelial neoplasms of the gastric mucosa in wild animals are of sufficient interest to warrant recording;<sup>1</sup> therefore it is hoped that this report will be of some value to comparative pathologists.

An adult pademelon (scrub wallaby) was shot on King Island during a survey of the parasitic fauna in this species. Because the operation was undertaken at night an accurate description of the gross lesions was not made, but the lesion of the stomach was noted to be invagination of the mucosa with papilloma-like outgrowths between which were packed large numbers of helminth larvae. These larvae were subsequently identified by Dr. Patricia Thomas of the University of Adelaide as immature (probably 4th stage) *Labiostrongylus* sp. The tumor itself was fairly well differentiated. The deeper surface cells had scanty, eosinophilic cytoplasm and large,

vesicular nuclei, those cells closer to the surface contained more cytoplasm and had even more vesicular nuclei, whilst the cells of the last few layers were degenerate, eventually remaining only as squames. In many areas infection modified this picture by stimulating leucocytic infiltration and leading to premature loss of epithelial cells. In the nuclei the nucleoli were prominent, but not particularly bizarre, and mitoses were not common. Cords of neoplastic cells were noted infiltrating deeply into the submucosa, and in this region the tumor had the typical reverse-morphology of a squamous-cell carcinoma with the presence of epithelial pearls surrounded by less mature epithelial elements.

As pointed out by Jubb and Kennedy<sup>2</sup> it is quite possible that these tumors could be initiated, in part at least, by a chronic irritative response to parasitic infestations of the stomach.

### LITERATURE CITED

1. COSGROVE, G. E., W. B. LUSHBAUGH, G. HUMASON, and M. G. ANDERSON. 1968. *Synhimantus* (Nematoda) associated with gastric squamous tumors in muskrats. *Bull. Wildlife Dis. Assoc.* 4: 54-57.
2. JUBB, K. V. F. and P. C. KENNEDY. 1963. *Pathology of Domestic Animals*. Vol. 2. Academic Press, New York and London, p. 76.

Received for publication December 30, 1970