
UNIVERSITY VETERINARY TEACHING HOSPITAL CAMDEN

PATHOLOGY SERVICES

410 Werombi Road
Camden NSW 2570

Telephone +61 2 4655 0777

Facsimile +61 2 4655 1212

Veterinary summary for translocation project koalas presented for postmortem examination at the University of Sydney Veterinary Pathology Diagnostic Service (VPDS).

Introduction

Six koalas (*Phascolarctos cinereus*) were presented to our service at VPDS between April 6th, 2025 and May, 23rd, 2025, for either full postmortem examination (necropsy) (four koalas) or microscopic assessment of selected tissues collected during full postmortem examination by the University of Sydney Wildlife Health and Conservation (WHCH) veterinary staff (two koalas). The koalas were understood to be involved in a government-operated translocation program and were removed from the wild in the project area due to signs of worsening health and welfare. Of the six koalas presented, two were euthanised following assessment by WHCH staff, and four were found deceased.

Postmortem (necropsy) and histological examinations findings

Detailed postmortem examinations / histopathological examinations were carried out on all of the submitted koalas, and the full technical records have been submitted separately. Overall, the presentation of these koalas was fairly consistent, regardless of the age and sex of the animals. Five koalas were found to be in poor body condition, with evidence of emaciation. Information regarding the body condition status was not available for one of the koalas examined by one of the veterinary staff member at WHCH. Five koalas presented with an empty stomach and poor gut fill, indicating that they had not been eating adequately for some time. In most of the cases, the liver also showed changes (such as hepatocellular atrophy) that are typically associated with reduced food intake; these can develop following either recent or prolonged periods of inadequate nutrition.

In all the cases, a definite cause of death could not be established. The findings suggested that three koalas may have died from a widespread inflammatory disease or a severe infection of the bloodstream; however, this could not be confirmed with certainty. Two of these animals died on the same day (April 4th, 2025) and were examined by a WHCH staff veterinarian on April 6th, 2025, although the reason for their concurrent deaths remains unclear.

In one koala, several wounds were identified; this examination had been performed by one of the veterinary staff members at WHCH, and the cause of the wounds could not be confirmed. Another koala had multiple small nodules and a large cystic structure in the lungs, and microscopic examination showed severe, long-standing lung disease with more consistent evidence of acute widespread infection in the bloodstream.

One koala also showed signs of inflammation in the intestines, seen both at gross examination and under the microscope. The cause of this enteritis could not be determined. It was considered possibly related to an imbalance in the gut bacteria, sometimes referred to as

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caeco-colic dysbiosis or typhlocolitis syndrome in koalas. However, several findings argued against this, including the presence of normal stomach contents and partially formed faeces in this animal.

Some additional findings, which were considered not directly related to the cause of death, included the presence of intestinal and/or lung parasites.

Summary

In summary, the postmortem examinations (necropsies) confirmed that most of the koalas were in poor nutritional condition and had experienced prolonged nutritional and health stress. In several koalas, the severity of the malnutrition could have contributed directly to death or may have made them more vulnerable to other illnesses. Some findings suggested the possibility of severe infection or widespread inflammatory disease contributing to death in three koalas, but this could not be confirmed with certainty. While certain injuries and diseases were identified, the examinations could not determine a single, definitive cause of death for each koala. This limitation is not unusual in cases where animals have had prolonged poor nutrition, concurrent health problems, and limited available clinical history. These factors can mask or overlap with other processes, making it difficult to distinguish a clear primary cause. Nonetheless, the postmortem findings provide important information about the overall condition, and likely contributing factors in these koalas, even if an exact cause of death could not be established in every case.

For further details or to discuss any comments raised in this report, please contact me directly.

Sara Pagliarani
DVM DVSc PhD Diplomate, ACVP

Lecturer in Veterinary Pathology

Sydney School of Veterinary Science, Faculty of Science, Veterinary Pathology Diagnostic Services, University Veterinary Teaching Hospital Camden, The University of Sydney

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