Haemoparasites are relatively common in many species of native Australian mammal; however, their potential role as disease agents and their influence on wildlife ecology is not well understood. The protozoan piroplasm *Theileria ornithorhynchi* is thought to cause little harm under normal circumstances, but in an immunosuppressed platypus may become a significant pathogen. A subclinical infection may become clinical when there is an alteration in the host-agent-environment relationship.

A tick-infested, juvenile female platypus was seen on the bank of the Murrumbidgee River near Oura during daytime following a flood and was brought into care. Blood was collected aseptically from the dorsal bill sinus and Diff Quik stained blood smears were prepared. Haematology revealed yellow plasma, a PCV of 0.17 and red cell count of 4.4 x 10^6/l (reference ranges 0.49 - 0.51 l/l and 9.9 - 10.3 x10^6/l respectively) and a marked regenerative anaemia with reticulocytes, anisocytosis and nucleated erythrocytes. Large numbers of erythrocytes contained parasites morphologically consistent with *Theileria*. The life cycle of this organism is unknown, but is believed to have developmental stages within the tick. A semi-nested PCR using extracted DNA from whole blood produced an 18S rDNA gene that aligned with other *Theileria* and *Babesia* genotypes. Haematology also showed a left shift and toxic changes in the neutrophils, a monocytosis and some phagocytosis of parasitised erythrocytes. Despite tick removal and PCV improvement; the platypus' condition deteriorated, it died and was necropsied on day 5. Histopathology revealed a moderate erythroid hyperplasia of the bone marrow and spleen. Foci of hepatocellular necrosis and renal tubule deposits of bilirubin or haemosiderin were present. A pure growth of *Klebsiella pneumoniae* was isolated from liver.

The animal's death was attributed to a severe immune mediated haemolytic anaemia secondary to *Theileria ornithorhynchi* infection, accompanied by a terminal *Klebsiella pneumoniae* bacteraemia and septic hepatitis.