

THE NEUROPSY REPORT ON A WILD AND VERY OLD JAPANESE MACAQUE (*MACACA FUSCATA* YAKUI)

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Japanese macaque (*Macaca fuscata*) is one of the most intensely studied animals in the world. The average lifespan of individuals on unprovisioned groups is much shorter than that of provisioned groups and has been estimated to be only 6.3 yr in Yakushima. In fact, few individuals live into their 20's in both Yakushima and Kinkazan Island, comparing that females at Arashiyama in Japan, have a high survivorship rate (41% to age 20). This study reports the results of a necropsy conducted on a very old wild female Japanese macaque from Yakushima, and it provides a rare opportunity to examine some of the possible natural causes of death in this population. A section of the cementum from one of her teeth was stained with Hematoxylin after her death. According to incremental lines corresponding to her age, she was estimated to be at around 26 years old. Examination of its internal organs showed the presence of pulmonary hemorrhage, suggesting that she was suffering from pneumonia. However, the digestive tract had a heavy burden with a total of 1524 parasites including 4 nematode species such as *Streptopharagus pigmentatus*, *Gongylonema pulchrum*, *Oesophagostomum aculeatum*, and *Trichuris* sp. These data suggest that this female may have had lower immunity as a result of age, and that the burden of pneumonia and heavy parasite infection might have contributed to its death.

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