

Abstract

Three tests of nociception were adapted for the use in crocodiles (47.0-65.2cm long). In the capsaicin instillation test, capsaicin in concentrations of 10^{-9} to 10^{-3} g/ml instilled in the eye induced concentration related protective reactions which were counted. In the formalin test, 150 μ l of 5% formalin was injected subcutaneously in the fore paw, and the time spent "lifting the foot" and "not using the foot" was recorded. In the hot plate test, the plate temperature was set at 55°C and the latency until the following behavioural categories occurred was recorded: "lifting toes", "lifting foot", and "attempt to escape". This test could be repeated with similar results after an interval of 60 min. It was concluded that the crocodile has a well developed nociceptive system, and it may be possible to study the function of this system using these modifications of well known tests of nociception.