

at different times of the year as the period of parturition extends from the beginning of May until the end of July in *Hipposideros speoris*, the availability of spermatozoa and the retention of sexual activity of the male in this species are ensured by the storage of spermatozoa in the epididymis and the retention of the active status of the accessory glands until April.

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1. Grosser, O., *Verh. anat. Ges. Jena*, 1903, 17, 129.
2. Matthews, L. H., *Trans. Zool. Soc. London*, 1937, 23, 224.
3. Gates, W. H., *J. Mammal.*, 1936, 17, 268.
4. Folk, G. E., *Anat. Rec.*, 1940, 76, 103.
5. Wimsatt, W. A., *Ibid.*, 1942, 83, 299.
6. —, *Amer. J. Anat.*, 1944, 74, 129.
7. Hiraiwa, Y. K. and Uchida, T., *Sci. Bull. Fac. Sci. Kyushu Univ.*, 1956, 15, 255.
8. Krutzsch, P. H., *Anat. Rec.*, 1961, 139, 309.
9. Racey, P. A., *Period. Biol.*, 1973, 75, 2010.
10. —, *J. Rep. Fert.*, 1974, 41, 169.
11. Gopalakrishna, A. and Madhavan, A., *Proc. Indian Acad. Sci.*, 1971, 73, 43.
12. — and —, *Indian J. Exp. Biol.*, 1978, 16, 852.
13. Krishna, A. and Dominic, C. J., *J. Rep. Fert.*, 1978, 54, 319.
14. Medway, Lord, *Zool. J. Linn. Soc.*, 1972, 51, 33.
15. Myers, P., *Univ. Calif. Publ. Zool.*, 1977, 107, 1.
16. Guthrie, M. J., *J. Mammal.*, 1933, 14, 1.
17. Pearson, O. P., Koford, M. R. and Pearson, A. K., *Ibid.*, 1952, 33, 273.

CONCOMITANT OCCURRENCE OF *CORYNEBACTERIUM PYOGENES* AND *PSEUDOMONAS AERUGINOSA* IN THE MOUTH LESIONS OF COBRAS

BACTERIAL diseases of snakes, in India, do not appear to have been studied to any extent. The present note documents the isolation of *Corynebacterium pyogenes* and *Pseudomonas aeruginosa* from the mouth lesions of two cobras reared at a private snake farm near Bangalore.

The owner of the snake park brought two cobras for bacteriological examination. The history given

was that 6 snakes had died with lesions in the mouth. On examination the mouths of both the snakes showed a number of ulcerated spots. The ulcers were about 2 millimeter in diameter with necrotic deposits. The mouth of the snake was washed with sterile distilled water. By means of a sterile platinum loop, material from the ulcerated areas of both the snakes was taken and plated on blood agar plates. The inoculated plates were incubated at 37° C under 10% carbon dioxide tension and examined after 48 h incubation.

The examination of the plates showed two types of colonies with darkening of the plates. A representative loopful of each colony type was streaked on to fresh blood and nutrient agar plates. The colonial and microscopic morphology of the two organisms was studied. One colony type on blood agar plate was white glistening with an entire margin surrounded by a zone of beta haemolysis. The microscopic morphology of the organisms showed them as gram positive pleomorphic rods. Neissers staining revealed the presence of metachromatic granules. The organisms were identified as *Corynebacterium pyogenes*¹. The other colony type on blood agar produced darkening of the agar and when grown on nutrient agar the organisms produced a bluishgreen diffusible pigment. They were identified as *Pseudomonas aeruginosa*².

Although, both *C. pyogenes* and *P. aeruginosa* are considered as potential pathogens of higher animals, their role in the diseases of reptiles is not recognised to any great extent. Moreover, the concomitant occurrence of these two organisms from the mouth lesions of the snakes has not been reported. Therefore, this report documents the association of *C. pyogenes* and *P. aeruginosa* with ulcerations in the oral cavity of cobras in India.

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1. Cummins, C. S., Lelliot, R. A. and Rogosa, M., *In the Bergeys Manual of Determinative Bacteriology*, 8th edition, 1974, pp. 608.
2. Doudoroff, M. and Palleroni, N. J., *In the Bergeys Manual of Determinative Bacteriology*, 8th edition, 1974, p. 221.