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FLAGELLATED PROTOZOA (TRYPANOSOMIDAE) IN  
THE HONEY BEE (*APIS MELLIFERA*) IN QUEENSLAND

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SUMMARY

The first record of *Crithidia mellifica* in Queensland is presented.

This is to record the presence of a flagellated protozoan, family Trypanosomidae, in the honey bee (*Apis mellifera*) from beehives sampled at Dalveen, Queensland. The organism has been identified by the author as *Crithidia mellifica* and has been checked against cultured material provided by Dr D. F. Langridge. *C. mellifica* has not previously been recorded in Queensland. The organism has been recorded in Victoria and New South Wales (Langridge and McGhee 1967).

During 1971 and 1972 samples of honeybees were collected regularly for the purpose of estimating incidence of Nosema disease, causative organism *Nosema apis* Zander. The presence of an active motile organism was noticed during the winter months of 1972, which coincided with an increase in incidence of *Nosema apis* spores. It is not known if a relationship exists between the upsurge in the incidence of Nosema spores and the presence of *Crithidia mellifica*. It is suspected that similar environmental conditions are favoured by both organisms.

Stained preparations were made by smearing the rectal contents of an infected bee on a slide, drying in a current of warm air, fixing 3 min in methanol, redrying in warm air and staining in Giemsa's stain (one drop of concentrated stain to 1 ml distilled water) for 12 min.

Length of stained specimens ranged between 4.60 and 6.44  $\mu$  (av. 5.06  $\mu$ ); width 3.68 and 5.52  $\mu$  (av. 4.05  $\mu$ ).

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REFERENCE

- LANGRIDGE, D. F., and MCGHEE, R. B. (1967).—*Crithidia mellifica* n. sp. an acidophilic trypanosomatid of the honey bee *Apis mellifera*. *J. Protozool.* 14:485-7.

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