

ASPECTS OF THE BIOLOGY OF THE AUSTRALIAN COCKROACH *PERIPLANETA AUSTRALASIAE* (L.) (DICTYOPTERA: BLATTIDAE)

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At 27 °C and 45% r.h., the Australian cockroach *Periplaneta australasiae* (L.) developed to adulthood in an average of 113 days for males and 121 days for females. Developmental times were longer for cockroaches in smaller groups, at 155 days for females and 152 days for males, than cockroaches in larger groups where females took an average of 109 days to reach adulthood and males 96 days. Adult longevity was seen to be longer in males than females.

Fertile females produced their first ootheca approximately two weeks after moulting to the adult stage, producing oothecae every 4.3 days up to the eleventh ootheca, after which the rate of production became more sporadic. Mated females produced, on average, approximately 27 oothecae during their reproductive life span. The total number of offspring produced per female varied from 69 to 690 nymphs. A large proportion of females, although paired with males, failed to produce viable oothecae, suggesting failure to mate. Oothecal viability was 52% for females that were assumed to be mated and the numbers of nymphs that emerged from oothecae averaged 21 after 47 days development.

Unmated adult females were seen to be weakly parthenogenetic and to produce a small number of exclusively female offspring. All females produced through parthenogenesis, although capable of attaining adulthood, were sterile and did not produce viable oothecae.