17-053
PRELIMINARY STUDY ON NECROCOCESSES IN THE GUINEA SAVANNA IN THE IVORY COAST (COLEOPTERA)
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In the Afrotropical region necroceneses are dominated by Scarabaeidae (Trogidae, Hybosoridae, Scarabaeidae). The role of carrion beetles (Silphidae) is negligible.

During the wet season (July 1996) in the Parc National de la Comor in northern Ivory Coast (in both Guinea savanna and gallery forest), we found among 2744 beetles only 16 Silphidae, but 1826 Scarabaeidae on fresh goat skins. Skins depopulated in the gallery forest are less attractive to beetles than those placed in the savanna.

During the first days, Gymnopleurus are the dominant diurnal and Onthophagus the dominant nocturnal group. After the fourth day Onthophagus become dominant at day and Trogidae at night.

First countings during other months show that in the beginning of the wet season (April/May) the number of beetles per carrion is much higher than in July. Especially the diurnal Gymnopleurus puncticolli (Scarabaeidae) and the nocturnal Phaenochrous (Hybosoridae) occur at very high numbers.

During the dry season (December), the number of beetles per carrion is reduced; the dominating scarab guild are the Onthophagini; Trogidae are rare. Phaenochrous seems to be absent.

17-054
EDGE EFFECTS ON AMBROSIA BEETLE COMMUNITIES IN A LOWLAND TROPICAL RAIN FOREST, BORDERING OIL-PALM PLANTATIONS, IN PENINSULAR MALAYSIA
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When the aim of forest conservation is to preserve interior forest conditions as being representative of the original forest, it is essential to understand how they may be influenced by edge or border effects.

We investigated edge effects on ambrosia beetle communities in Pasoh Forest Reserve (3,450 ha), a lowland rain forest in Peninsular Malaysia, which largely borders oil-palm plantations established in the 1970's.

Species richness and composition of the ambrosia beetles (Scolytinae: Xylophaga) sampled with ethanol traps was similar along a gradient from the core area to the boundary of the forest. However, a polyphagous species, Xylosandrus crassiusculus, consistently increased in numbers from the core to the forest edge, being super-dominant in the boundary. It was as abundant in the surrounding oil-palm plantations as in the forest boundary. The results strongly suggest that there is a large flux of the cosmopolitan species from the oil-palm plantations deep into the forest.

The population may also be, to a lesser extent, enhanced by forest disturbance in the margin of the reserve. It is suggested that interior forest conditions are affected by the influx of the ambrosia beetle since, for example, there is a possibility the insect may carry microorganisms originating from the surrounding, disturbed habitat.

A wide buffer zone, at least 2 km in width, will be necessary to eke such external influence.

17-055
CONTROL OF THE CARABOMBO FRUIT FLY, Bacromene carabombe (DIPTERA : Tephritidae) BY MALATRANNICATION METHOD AND WRAPPING
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The Carabombo fruit fly, Bacromene carabombe Rush & Hancock, is one of the major pests of star-fruit or carabombe, Avocado carabombe.

Control study of this fly was carried out from March 1994 to January 1995 at a commercial carabombe fruit orchard in Cirebon, West Java, Indonesia.

Two type of trap (Delta and Round Trap) with four different solution of Methyl Bugen (ME) as an attractant were applied at the beginning of the flourishing. One month after this period, convirtional preventive method was applied by wrapping individual fruit with a plastic transparent bag.

The results showed that Round Trap with pure ME attracted the most number of flies. The number of flies caught by ME staled by two times of commercial oil, were not significantly different with that caught by pure ME with both in Round Trap and Delta Trap. During this study, the population number of parasita fruit flies started to increase in May, at the beginning of flourishing, then reached the peak in July to August 1994 when the fruit opened.

The population was then decreased at the end. This pattern was the same to the following season (September, 1994 - January, 1995). From fruit production data, it is indicate that application of the male annihilation method and wrapping using ME reduce the infestation of the fruit flies up to one fourth, which is from 25% to 6%.

17-056
BIOLOGY OF PULSE BEETLE CALLOSOBURCHUS CHINENSIS(L.) ON COWPEA VARIETY RASTRIS 117 T. WIGGLES UNDER LABORATORY CONDITIONS
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Consequent upon the establishment of 1.8% field infested greengram pods and emergence of 6 males and 3 females beetles from these pods in the laboratory, observations on biology of pulse beetle, C. chinensis were recorded on greengram, V. radiata. By releasing freshly emerged one pair of beetle in glass vial enclosing four dry and ripened greengram pods. There were 25 replications. Preoviposition, oviposition and post-oviposition period of pulse beetles were found to be on an average 10.8 18-11 hrs., 1.6 (Range 4-8 days) and 1.5 (Range 3-5 days) respectively. The longevity period of female of pulse beetle was 6.6 days (Range 4-9 days) as compared to 6.3 days (Range 5-9 days) of male. A single female of pulse beetle laid on average of 44.5 eggs (Range 28-55 eggs) and the maximum egg laying was recorded on the first day of oviposition after that egg laying went on decreasing till the last day of oviposition. Incubation and total development period from egg to adult emergence were observed to be with an average of 6.1 (Range 6-7) and 28.3 days (Range 25-31 days, respectively. Out of 1112 eggs, a mean of 12.3% adults (Range 6.8-18.1% adults) emerged under laboratory conditions.
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