

ABSTRACT

THE ECOLOGY OF PROCRIPTOTERMES CORNICEPS SYNDER
IN THE PORT ROYAL MANGAL
WITH SOME REFERENCES TO
INCISITERMES SCHWARZI BANKS.

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The ecology of P. corniceps was studied in the Port Royal mangal of Jamaica. The emphasis was on establishing the importance of the contribution of this species to the detritus cycle of the area. In some eco-systems, termites have been found to play a significant role in the turnover of detritus.

P. corniceps was found in Rhizophora mangle Linn., Laguncularia racemosa Gaertn. and Avicennia germinans Jacq.. These are three species of mangrove, commonly known as red, white and black mangrove. I. schwarzi was only found in red mangrove.

The distribution of sizes of colonies of P. corniceps was examined. As with other species of drywood termites, it was found that few colonies contained more than a thousand individuals.

The densities of both species of termites were determined and found to be 37 termites / m² for P. corniceps and 4 termites / m² for I. schwarzi. This is low compared to termites from other families and is probably related to the fact that these termites live in enclosed nests.

Wood consumption and wood preference experiments were carried out on groups of P. corniceps. It was found that the source wood (the wood from which the termites had been extracted) and the feeding regime both affected the mortality and results of the experiments. These two factors also affected the efficiency with which the termites assimilated wood.

The proportion of soldiers in colonies of P. corniceps decreased with colony size. The proportion of all other castes increased with colony size. P. corniceps was found to have a biomass of 0.1711 g/m². All castes show changes in colony proportions throughout the year with nymphs and alates showing changes which relate to rainfall levels.

It does not appear that either P. corniceps or I. schwarzi contribute to a significant degree to the turnover of detritus in the Port Royal mangal, probably due to their low density in this area.