Observations on the biting activity of *Anopheles triannulatus bachmanni* from the Mato Grosso, Brazil.

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Collections were made between 17.30 and 19.30 h. Collectors changed places on alternate collections.

In 1978 Polovodova's technique (Detinova, 1962) was used to determine the physiological age of biting females. This method was also used in 1979 to determine parity in some specimens.

**RESULTS**

*An. triannulatus bachmanni* bites predominantly at dusk with a reduced attack at dawn. In a series of all night biting catches less than 5% of the total *A. triannulatus bachmanni* caught were collected after 21.00 h (Charlwood & Wilkes unpublished data). Figure 1 shows the biting activity at dusk in 1978 and 1979 collected by a human bait in the ‘outside’ position. Peak biting occurs only for a very restricted time.

The activity of *A. triannulatus bachmanni* caught man biting in Aripuana. a) April 1978. b) June 1979. The time of sunset has been corrected to 18.00.

In all paired catches the great majority of insects were collected in the ‘outside’ position at the edge of the forest. The results of five ‘inside’/‘outside’ and four ‘outside’/‘airstrip’ collections are given in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Outside</th>
<th>Inside</th>
<th>Outside</th>
<th>Airstrip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number collected</td>
<td>1193</td>
<td>50</td>
<td>757</td>
<td>98</td>
</tr>
<tr>
<td>% of total</td>
<td>95.8</td>
<td>4.2</td>
<td>88.5</td>
<td>11.5</td>
</tr>
</tbody>
</table>

The age structure derived from dissections of 184 females collected in 1978 is given in Table 2. As with the *A. darlingi* Root dissected at the same time (Charlwood & Wilkes 1979) the majority of the parous insects had well defined relics. This implies that the females had rested for at least twenty-four hours after oviposition. A survivorship curve, derived from the data (Figure 2) shows that mortality was more or less uniform between the different age groups.

Of 1177 adult females examined in June 1979, 216 (18.3%) were infected with an unidentified parasite resembling *Coelomomyces* sp.

**TABLE 2 — Age composition of Anopheles triannulatus bachmanni collected man biting at Aripuana in April 1978.**

<table>
<thead>
<tr>
<th>Number of Dilatations</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number dissected</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>102</td>
<td>45</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>184</td>
<td></td>
</tr>
</tbody>
</table>

Charlwood & Wilkes
DISCUSSION

The reluctance of *A. triannulatus bachmanni* to enter houses or to fly away from the forest edge indicates that this species is only likely to be of minor importance as a vector of malaria in Aripuana. Numbers biting and adult survivorship may, however, be sufficiently high for incidental transmission to occur. This possibility is enhanced by the fact that the peak biting activity takes place when many of the local inhabitants are outside their houses.

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SUMÁRIO

Foram coletados em Aripuanã, Mato Grosso, *Anopheles triannulatus bachmanni* com isca humana. Em capturas aos pares menos de 5% dos insetos foram coletados picando dentro de casas, a maioria dos insetos foram coletados nas margens da mata ao pôr do sol. A determinação fisiológica da idade indicou uma distribuição de idade uniforme de fêmeas, mas o comportamento do vôo dos insetos falsou-a de pouca importância como vetor da malária.

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