Observations on the activity patterns of the lesser yellow house bat, *Scotophilus viridis*

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The activity patterns of the lesser yellow house bat, *Scotophilus viridis*, were observed during December 1984. Whilst the activity patterns of the species as a whole were in agreement with published data, significant differences between the activity patterns of males and females were found. The majority of females were active between 19h00 and 21h00, whilst the activity of males peaked between 21h00 and 22h00.

Die aktiwiteitspatrone van *Scotophilus viridis* is gedurende Desember 1984 waargeneem. Hoewel die aktiwiteitspatrone van die spesies in geheel in ooreenstemming was met gepubliseerde data, is betekenisvolle verskille gevind tussen die aktiwiteitspatrone van mannetjies en wyfies. Die meerderheid wyfies was aktief tussen 19h00 en 21h00, terwyl die mannetjies tussen 21h00 en 22h00 aktief was.

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Activity patterns of a population of breeding *Scotophilus viridis* were studied on the shores of Lake Kariba at Tashinga, Matusadona National Park, Zimbabwe (16°49'S/28°27'E). This species was previously known as *Scotophilus leucogaster*, and is the smallest of the three species of *Scotophilus* occuring in the southern African subregion (Smithers 1983).

Bats were mist netted either in open grassland or mopane woodland, from 1 to 13 December 1984. Observations began at sunset and were terminated at 23h30 when bat activity declined. Nets were inspected at 30-min intervals for the six netting nights. All bats captured were sexed, and identified following Fenton (1975).

A total of 46 female and 24 male *S. viridis* were captured. Four of these, three females and one male, were deposited in the Natural History Museum, Bulawayo, Zimbabwe.

Total captures of male and female *S. viridis* for each 30-min period are shown in Figure 1.

The major period of activity was found to extend from 19h00 to 21h00, after which a decline in activity was noted (Figure 1). This is in agreement with Fenton (1975).

Activity patterns between the sexes were found to be significantly different ($\chi^2 = 17{,}73$; $p < 0{,}001$), when comparing values before 21h00 with those obtained later (Figure 1). The majority of females were lactating and showed greatest activity soon after dark (19h30), whilst the activity of males peaked between 21h00 and 22h00 (Figure 1).

The reasons for such marked dimorphic differences in activity patterns are not fully understood at present. However Swift (1980) has found a peak in insect abundance immediately after sunset, and since lactation can involve added energy demands (Kunz 1974), females may obtain their daily energy requirements more efficiently by being active just after sunset. Furthermore the attainment of sufficient food resources by females may be enhanced by a reduction in competition for food resources between the sexes.

However, further research is required to determine and verify more fully the reasons for such activity patterns.

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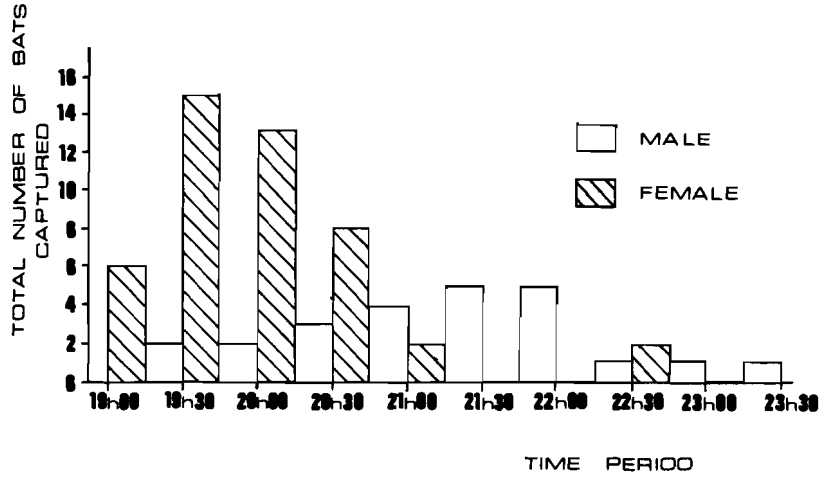

Figure 1 Total captures per time period of male and female *Scotophilus viridis*.