

DATA ON URBAN BADGER ACTIVITY IN SOUTH WALES: A BRIEF STUDY

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ABSTRACT – The study was carried out in spring 1991 on a badger (*Meles meles*) sett in Baglan (South Wales, U.K.) composed by up to 35 holes. Eighteen holes and eleven paths around the sett were marked arranging cotton threads at an average height of 10 cm from the ground; they were checked every morning for 20 consecutive days. The sett use was not correlated with the weather conditions: paths were always used while holes were used in station. A door-to-door questionnaire about the general behaviour and the movements of the animals was submitted to the inhabitants. Eight badgers were counted and they used an urban area of 9 ha wide.

Key words: *Meles meles*, Urban badger, Sett use, Activity, South Wales.

RIASSUNTO – *Dati sull'attività di tassi in ambiente urbano nel Galles meridionale: un breve studio* – Il lavoro rappresenta uno studio preliminare compiuto nella primavera del 1991, nella cittadina di Baglan (Galles meridionale), su un sistema tana di tasso (*Meles meles*) costituito da oltre 35 aperture. Lo studio si proponeva di raccogliere dati sull'attività, sul numero degli animali presenti e sulle intrazioni che questi potevano avere con gli abitanti. A tale scopo sono stati "innescati" con fili di cotone, diciotto aperture e undici passaggi che sono stati controllati ogni mattina per 20 giorni consecutivi. L'uso del sistema tana non era correlato con le condizioni atmosferiche. Ogni notte gli animali percorrevano sistematicamente gli stessi sentieri, inentre le aperture venivano utilizzate a rotazione. In concomitanza ai rilvamenti di campo sono state intervistate 43 persone che vivevano nella cittadina, presentando loro un questionario porta a porta. I dati raccolti hanno permesso di censire 8 animali che utilizzavano un'area urbana di 9 ha.

Parole chiave: *Meles meles*, Tasso, Uso della tana, Attività, Galles meridionale.

INTRODUCTION

Frequently, badgers (*Meles meles*) come to forage, and in some cases to live, around built-up areas. This could cause problems for both badgers and humans (Harris et al., 1990; Bevanger, 1990).

The aim of this brief work supported by the British Petroleum Company "BP", was to be a pilot study providing an initial tool in environmental education projects. Indeed, in South Wales, badgers were traditionally persecuted and still now badger sports seem to be the sole remaining threat to these animals (Griffiths et al., 1990).

This work examines the sett use and the relationship between badgers and the people living in Baglan town (South Wales).

STUDY AREA AND METHODS

The study was carried out in March-June 1991 in Baglan (Glamorgan, South Wales, U.K.; Fig. 1) on a sett composed by up to 35 holes. The sett was located on the border between two

houses. The urban area was surrounded by pasture and scattered woods consisting mainly of beeches, ash trees and brambles. The sett use was evaluated arranging cotton threads around holes (n=18) and paths (n=11) at an average height of 10 centimetres. For 20 mornings from April the 12th to May the 17th 1991, threads were checked. The difference in use between paths and holes was tested with the chi-square analysis. The percentage of threads found disturbed was considered as an index of the use of the sett and recorded together with data on weather conditions divided in 3 classes: good, cloudy, and rainy weather. The results were tested with the "Kruskal-Wallis" (K.W.) one-way analysis of variance by ranks (Zar, 1984).

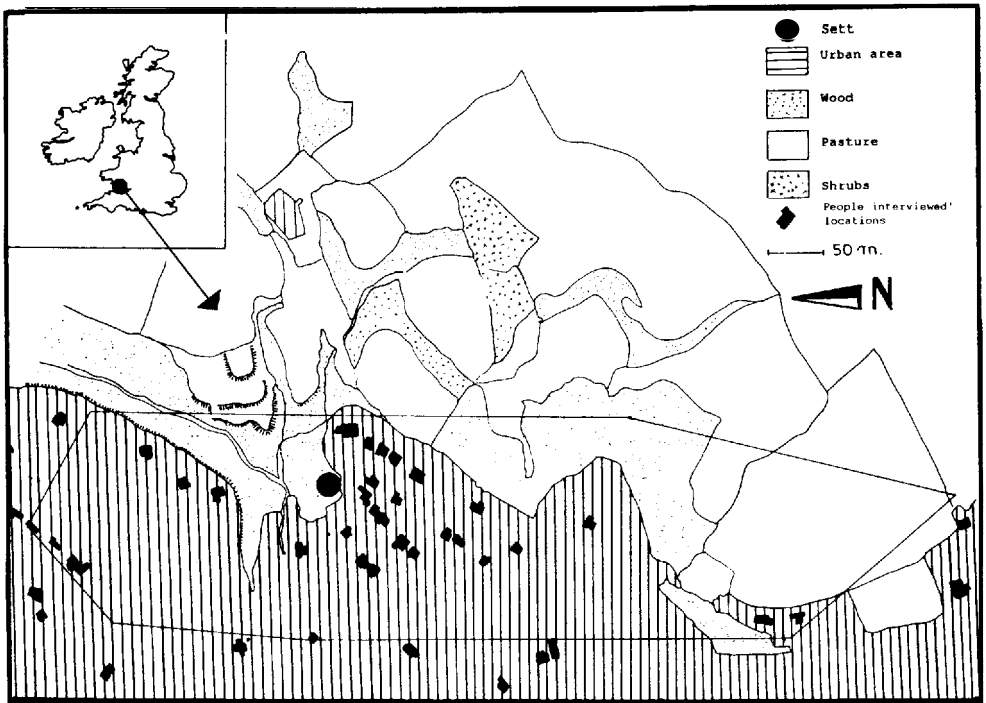


Fig. 1 - Location of the study area. The polygon shows the urban area utilised by badgers (9 ha).

Data on the behaviour of the animals and their interaction with humans were collected from 43 people living close the sett, using a door-to-door questionnaire. The questionnaire was divided into three parts. The first part investigated how much knowledge the people interviewed had about the local badger situation. The second part was mainly turned to the relationship or problems linked with the presence of the animals. The final questions were about whether the person interviewed was positively inclined to the animals living locally or not. Therefore the direct observations done by the inhabitants were recorded and used to draw an area intensively exploited by badgers.

In addition, a video camera was placed in a garden where badgers used to forage. The animals were censused distinguishing them on individual features (tail length, shape and size).

RESULTS AND DISCUSSION

The sett use (Fig. 2) was not correlated with the weather conditions (K.W. = 1.0 $P = 0.53$). The mean hole dimensions of the sett were 26.5 cm in height (SD = 6.83)

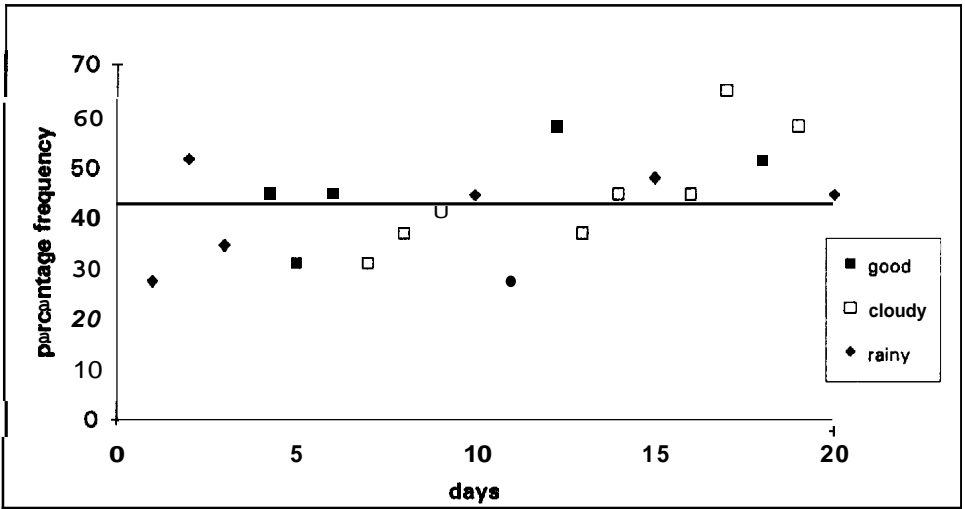


Fig. 2 - Variation of the sett use in relation to the weather conditions. The straight-line indicates the mean percentage of frequency.

34.1 cm in width ($SD = 8.78$). Paths were more utilised than holes ($\chi^2 = 30.91$; d.f. = 1; $P < 0.001$). In agreement with other authors (Harris et al., 1989), holes less than 25 cm wide were not found. Their use changed during the study period with the changing activity of the animals, while the paths did not.

Badgers fed normally in gardens of houses near the sett and foraged in dustbins along the road (often breaking them). In addition, 14% of the people interviewed regularly fed badgers with remains of bread, meat and fruit. These "feeding stations" were visited by badgers every night. The 57% of people who used to feed badgers, saw them feeding on a regular basis. These constant food resources could likely play an important role in the feeding strategies of badgers living in sub-urban environment.

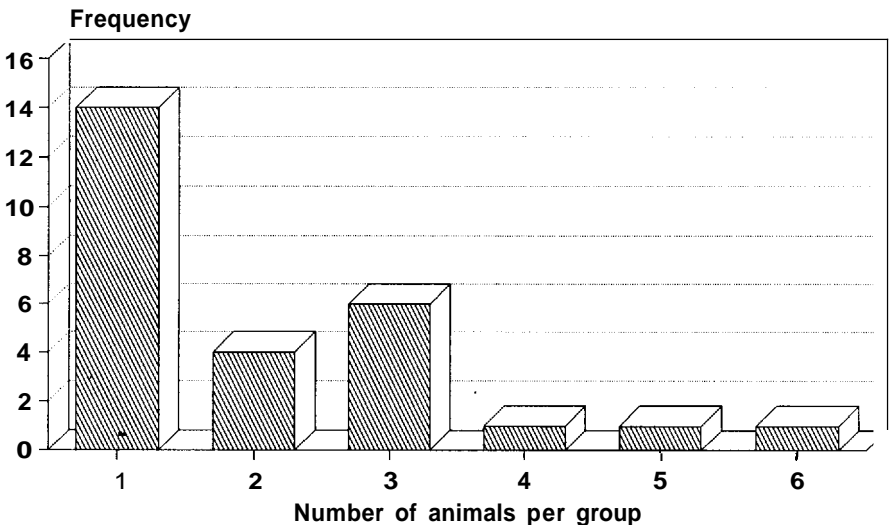


Fig. 3 - Frequency of the observed badger groups.

The size of badger groups recorded by the inhabitants over 3 year is shown in Fig. 3. In three cases when groups were more than 3 animals, cubs were said to be present. During the study period, 8 badgers (6 adults and 2 cubs) were censused and they used an urban area of 9 ha wide.

Apart from the dustbins turned up or broken along the road (8 cases on 43), no people interviewed had experienced any other real problem associated with the presence of badgers. Among the people who replied, the 63% was positively inclined to the presence of the animals while the rest was not bothered.

The door-to-door questionnaire used in the present work has represented an important tool of collecting data about the movements and the general behaviour of badgers. It could also be an effective tool to contact and inform people, and to encourage them to get involved in protecting badgers.

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