



The Echo



Newsletter of the Warwickshire Bat Group

October 2000

SUMMER AND.....

Well, the Summer is well and truly over, and most of the bats have gone off to hibernation roosts, wherever they might be!

It has been a strange year for those involved in the National Bat Monitoring Programme Pipistrelle counts, as the bats seemed to arrive late at most maternity roost sites, and leave again much earlier than expected. If anyone is regularly watching bats in their area and hasn't yet signed up for the NBMP then please do so. Pip exit counts are the easiest to do, but a Daubenton's count doesn't have to be too arduous. If you want to lend a hand next season or just find out what you might be letting yourself in for, then contact Colin Catto, NBMP, 15 Cloister's House, 8 Battersea Park Road, London, SW8 4BG.

During the Summer the Group ran several bat walks, starting in May at Tocil Wood, on behalf of Warwickshire Wildlife Trust (it poured down), and finishing with a walk at Stockton locks led by Sean Neill. In between were walks in Kenilworth (Abbey Fields and Kenilworth Common), led by Paul Elliott, and Bedworth Sloughs and Coventry Canal (Swan Lane), led by John Waller. Members of the Batgroup also assisted with 'privately run' batwalks at Coombe Abbey (led by Ranger Martin Baxter), Brandon Marsh (WWT), The National Herb Centre (Warmington, near Banbury), and Keith Blundell led a batwalk around the gardens of Upton House (Edgehill, near Banbury).

The display stands did a lot of travelling again this year, taking in The Godiva Festival (Coventry), Home farm (NAC, Stoneleigh), Burbage Common Open Day, Rugby Advertiser Carnival, Friends Of Canley Ford Day, Swan Lane Canal, The National Herb Centre and The Town And Country Festival. On July 8th the display had to sub-divide and attended King's Wood Open Day in Nuneaton and Rugby's Going Green at the same time. That takes some doing!

Licensed (EN) members of the group have been kept fairly busy throughout the 'active' season with a mixture of interesting and unusual calls (see The Long Arm Of The Law below).

And somewhere amongst this busy schedule the group put up bat-boxes at Coombe Abbey and surveyed the grounds at Newbold Revel (again).

....WINTER

Unlike Warwickshire's bats, Warwickshire Bat group does not hibernate, and the Winter Programme is about to start. Craig Fellowes, Warwickshire Police Force's Wildlife Liaison Officer, and Phil Richardson are already booked, and there will be the

usual Christmas Party in December. Sadly we no longer have the use of the room at Warwick University, so watch out for different venue information in the forthcoming events list.

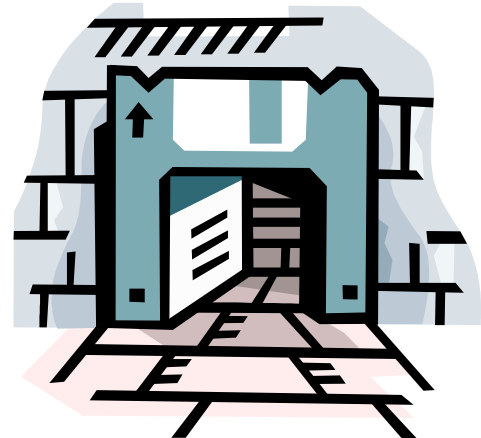
CHANGE OF 'ADDRESS'

The Bat Group's e-mail address has changed. It is now:

info@warksbats.co.uk

There has been a change to the Website address also:

www.warksbats.co.uk



THE LONG ARM OF THE LAW? (Rod Muller)

A request from "Cresswell" to inspect a bat which had remained inside a main entrance porch for five days found me zooming across the splendid grounds that surround Warwickshire Police Headquarters at Leek Wootton. The Law was concerned about a bat and I had been summoned!

On arrival, captured on CCTV, I ambled up to the reception entrance and there, some 15 foot up, was indeed a bat.

The civilian caretaker obligingly provided me with a suitable ladder and equipped with gloves, hard hat, breathing mask, pliers, net and a soft batbag I climbed cautiously to within 12 inches, sorry 300mm, of the fearsome beast.

Oh, what a sweetie!

On examination the lone bat was, in my opinion, an adult male Whiskered and in absolutely wonderful condition. This was a rare treat to handle such a handsome bat and after descending the ladder I was obliged to show him off to the ladies at reception who had reported the matter to Cresswell.

All agreed that this was a special little mammal but I was

anxious to release him back into the wild. So I put him on a nearby oak tree and he scampered safely away up the trunk, hopefully none the worse for the experience.

And, for the technically minded:

- Weight: 7.0 g approx.
- Ears: Medium, pointed; tragus half length of ear
- Face: Pointed and dark.
- Penis: Long (embarrassed the ladies) and slim!

But the story continues

THE LONG ARM OF THE LAW? Part 2.

Now one thing leads to another and so it was with the Whiskered bat.

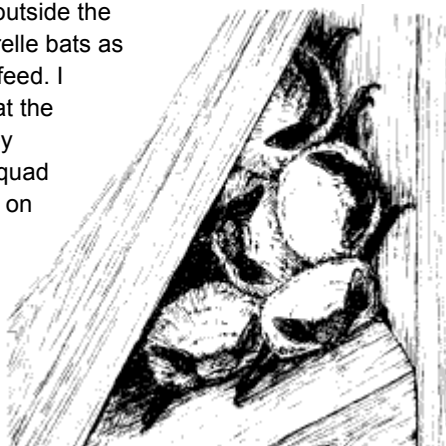
The caretaker casually mentioned that he was going to sweep bat droppings away from some building. "What do you mean" says I, "sweep BAT DROPPINGS away?" and Steve, 'cos that's his name, said that there was a pile of droppings outside the toilet by the garages. Well, I pondered, where else would you expect to find poo but outside a toilet!

Off we go, me dragging Steve, to the toilet by the garages and sure enough there is bat poo everywhere you could imagine. A pile on the ground, stuck to the walls and ceiling and the only obvious exit was a small stained hole between the brickwork and ceiling.

Wow! I thought, that's a lot of poo! However, I quickly decided that this needed further investigation and probably recording too.

So a couple of days later

I found myself back outside the toilet counting Pipistrelle bats as they left the roost to feed. I really don't know what the police thought as they drifted past in their squad cars and saw me sat on a little blue box, motionless (I think there's a pun there somewhere) watching the toilets.



Anyway, one hundred and twenty three pips came out in under half an hour and chattering could still be heard inside the roost. I felt quite pleased that here was a new roost and a sizeable one too!

This was a genuine Pipistrelle maternity roost. A couple of weeks later a repeat count recorded one hundred and twenty

one bats and still chattering inside which I presumed would be juveniles left behind.

And the nice thing about this roost? It's protected by the law!

But the story continues

THE LONG ARM OF THE LAW? Part 3.

And, there's more!

Intrigued by the bat poo stuck on the walls and ceiling around the toilet entrance, I decided that whilst counting bats "out" was now ordinary fare, counting bats "in" just before sunrise might be more interesting - you know swarming and all that stuff. So the intrepid bat roost counters, Pete Maule and myself, returned to the roost during August to spend an all-nighter watching them out and then in! Sound good? We arrived early evening, set up camp and waited. And, waited and waited some more!

When it was too dark to see, with no more coffee or sandwiches and still nothing had left the roost we decided to cut our losses and go for a wander. Sad, the roost had definitely broken up for the autumn but there is always next year.

Was it a waster? Well no. There are a couple of lakes on the site at Leek Wootton and we amused ourselves counting Daubenton's, pips and things and planned the next silly venture.

PIP WATCHING - A PERSONAL ACCOUNT

Just to show that not all pip roosts arrived late and left early this year, we received this letter from Batgroup member Elizabeth A Parry.

Our small Pipistrelle breeding colony, which spreads into my neighbour's house, had a successful year, despite a rather unfortunate beginning. Bats arrived earlier than usual, in the second half of May, just before a spell of warm weather. Numbers, based on evidence from droppings, were smaller than last year's (1999) for both houses. Then, at the beginning of June, we had a period of very cold weather, with very low temperatures at night – June 4th was a Bedsocks and Blankets night. The bats vanished completely. No more droppings. They did not re-appear until the really warm, sunny weather, around mid June. However, then, the numbers (droppings evidence) showed a marked increase over those of both 1998 and 1999, for both houses. They stayed on a little longer than usual, finally disappearing by about August 20th. No casualties seen.



Occasionally, in the daytime, as one passed

under the area where they roost, one would be aware of an outbreak of squeaks, as if they were protesting about an invasion of space by a neighbouring bat. Or, perhaps adolescent bats argue with their elders?

Presumably food supplies were adequate, despite as apparent decline in the insect population, particularly in butterflies and moths, the latter being a useful food source for bats, which has been the case for some years.

SNIPPETS FROM 'THE GUARDIAN'

Britain Goes Batty – One last piece of good news: a colony of rare Barbastelle bats has been discovered in Wales – the first in that country, and the fifth in Britain. In all, 10 of the 16 species of British bat were found in Pengelli Forest Nature Reserve using sonar detectors and giving hope of other discoveries elsewhere. – Paul Brown.

Batty Idea - A man who put up a fly paper at his home near Wadebridge, Devon, woke up to find 15 whiskered bats stuck to it. – Western Morning News.

THE NATIONAL BAT CONFERENCE 2000 – BELFAST, OR WHAT WE DID ON OUR HOLIDAYS. (Julia Waller)



The National Bat Conference 2000 got off to a super start with an excursion to a Nathusius' Pipistrelle roost on the Friday evening. The 300 or more bats reside in various buildings at Clotworthy Arts Centre, Randalstown Road, Antrim, County Antrim, Northern Ireland. Built about 1840 the Centre was originally the stables and coach house of Antrim Castle. It was once the centre courtyard flanked by town wings built in a neo Tudor Style. It was refurbished in 1993 to provide a centre for music, drama and the visual arts.

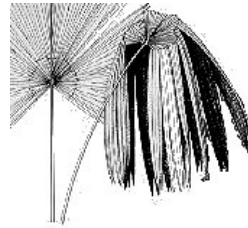
Members of Northern Ireland bat group very kindly led the bat walk and in true Blue Peter fashion had netted some Nathusius' Pips to show us. They are large and very shaggy for Pips, and the one we saw was very frisky – it must have had its Weetabix for breakfast! When we arrived we were treated to a stream of bats coming out of a large brick building that was being used that evening as a rehearsal room for a very loud pop/rock band. In fact when the band saw all these strange people wandering outside in the dark they came out and stared at us in disbelief, then they got back to the serious business of rehearsing....

That evening Daubenton's, 45 and 44 Pips and Leisler's were also recorded, but I think the highlight was a night sky filled with circling and swooping Nathusius Pips. You didn't need a bat detector to hear their loud social calls even above the dubious music coming out of the rehearsal space!

The Northern Ireland batgroup has a website at: www.batgroup.fsnet.co.uk and they must be congratulated for all their help in organising a very successful conference.

In Northern Ireland bats are protected under the terms of the Wildlife (Northern Ireland) Order 1985.

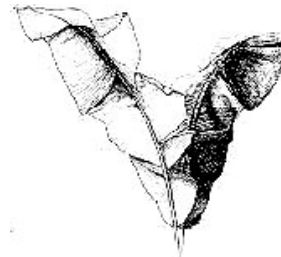
CARRY ON CAMPING.....



Thomas Kunz from Boston University, USA (kunz@bu.edu) treated us to a lecture all about tent-making bats. All the species that show this behaviour are small (less than 60g); mainly eat fruit and roost in foliage. It was originally thought

that the bats were just taking advantage of shelters produced by insect damage – even though they had already been labelled as “tent-making bats”. The bats need to be small to navigate their way through the cluttered environment of a tropical forest and so they can hang safely from leaves and branches without collapsing the structure.

Tent-making or tent-roosting behaviour has been described for 15 species of the microchiropteran family Phyllostomidae, 3 members of the megachiropteran family Pteropodidae, and one member of the microchiropteran family Vespertilionidae.



What is noticeable about tents and their use by bats is that most are occupied (and probably constructed) by species that attract a harem of females. Both males and females have been observed roosting alone in tents, although each species commonly forms groups of varying size

made up of a single male and several females; typically 5-15 adult females. By biting the leaf veins they make the leaf collapse and ‘hey-presto’ they have a shelter to roost under! The latest theory about mating behaviour in tent-roosting species suggests that the tents can offer bats protection against bad weather and predators, and they also can be effectively defended against rival males.

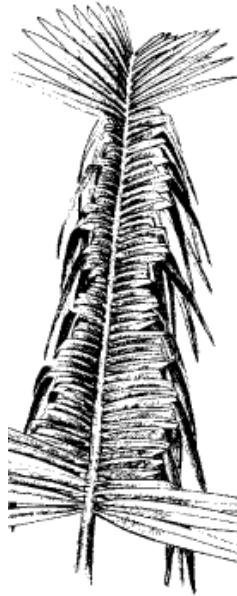
This strategy would seem to pay off as, although tent-making behaviour has only been definitely observed for harem males of the Short-nosed Fruit Bat (*Cynopterus sphinx*) which is found in India and SE Asia, evidence from DNA markers in this species suggests that harem males father approx. 70% of the pups in one harem.



It seems that bats use these “bat-made” roosts just like any other roost, choosing from a number of local tents in the local area. In the mating season in any one tent you may find a group of huddled females with their guardian male hanging to one side of the tent. Or you could find a lone male hanging hopefully or even a group of females and young on their own. Some males are able to retain their harems for up to 3 years while it is thought that females may remain loyal to their grouping for life.

Over 100 plant taxa are used by bats for tent construction, although there are a limited number of leaf shapes that can be used. So far 8 different architectures of tent have been discovered:

- Conical
- Palmate Umbrella
- Apical
- Bifid
- Pinnate
- Paradox
- Boat
- Stem

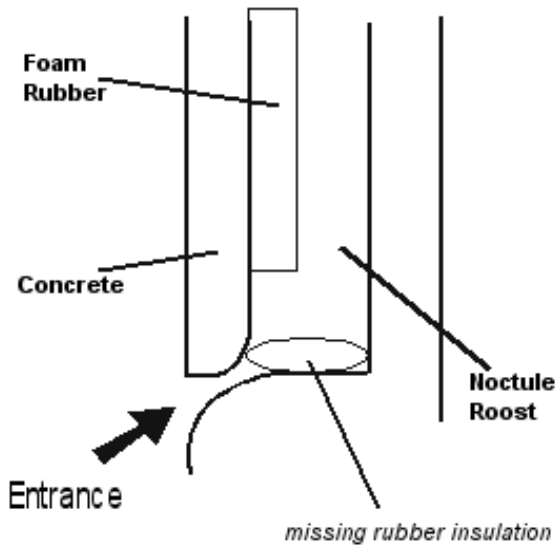


Tents are constructed by bats from altered vines, leaves and branches of trees, flower and fruit clusters, and roost masses of epiphytes. The stem type are among the most variable and durable of tents. Male Short-nosed Fruit bats produce the latter by severing the central strings of immature flower and fruit clusters on Kitul Palms. As the flowers mature into fruits the altered cluster forms a bell-shaped cavity in which other bats can eventually roost.

URBAN BATS:

ADAPTATION OR PLASTICAL BEHAVIOUR?

We had a very interesting talk from Zoltan Bihari from Debrecen University in Hungary. He has carried out research to ask the question: Are urban bats just finding roosts that mimic their natural ones or are they having to change their behaviour to find somewhere to live? In ecological terms this is known respectively as plastical or adaptive behaviour.



He found that in Hungary some species actually prefer artificial roosts to the natural ones that are available in an area, with the Noctule bat being the most urbanised. The diagram shows a section of outer wall that is a particularly popular form of Noctule roost found in tall tower blocks made of prefabricated concrete. Often the outer concrete structure is not well maintained and has holes in that allow bats access especially where a rubber insulation part is erroneously missing. (Three cheers for cowboy builders!) The roost entrance is on average about 6-8m high and found mainly in west and south facing panels.

All the 3 species he studied (Greater Horseshoe, Greater Mouse-eared and Noctule) are increasing in numbers at present. However, his research has found that in general their behaviour was plastical i.e. the bats were finding roosts that imitated their natural homes. This means that should a great deal of renovation work take place on the buildings/sites that they are using then an apparent stable population could disappear. In the Carpathian region, in particular, churches have a special role to play for Greater Horseshoes as there are few warm caves in the area suitable for winter roosts.

In the course of his study he also looked at what environmental conditions made a roost attractive to Greater Horseshoes and Mouse-eared bats. The following table shows whether entrance size and interior temperature were significant factors in the bats choosing to roost in churches and caves/mines.

CHURCH ROOSTS	Greater Horseshoe	Greater Mouse-eared
Entrance size	yes	no
Interior Temp	yes	yes

CAVES/MINES	Greater Horseshoe	Greater Mouse-eared
Entrance size	N/a	N/a
Interior Temp	yes	yes

SEROTINES IN KENT

The Serotine bat (*Eptesicus serotinus*) is found mainly south of a line from the Wash to parts of South Wales. It is considered to be in serious decline in the south eastern counties, whilst in some areas further to the west it is referred to as a common bat.



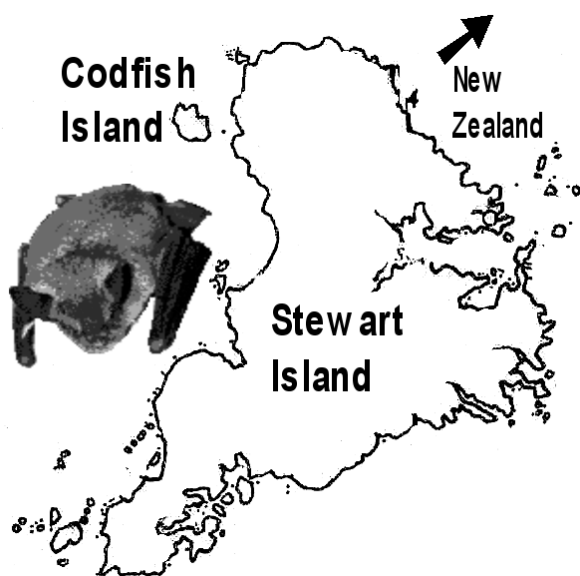
No attempt so far has been made to assess its relative abundance in different areas.

As the Serotine is a target species in the Kent Biodiversity Action Plan, Kent Bat Group is working to develop a survey method which will provide a snapshot of Serotines in Kent. A number of 10km² areas across the county have been surveyed with details of habitats present recorded along planned routes. The actual surveying was carried out using a bat detector held just inside a car window and the car was driven along a 'circular' route of about 15 miles at about 20 mph avoiding motorways and trunk roads.

The first half of the survey was carried out during the day by attempting to record the habitats at mile intervals. Then the same route was driven twice at night; once to record bats from one side of the road and then again to record on the other. Where Serotines were identified the spot was later revisited to note the specific habitat.

Each survey team needed 3 people: a surveyor, navigator/recorder and driver, which made the surveys fairly labour intensive. Sometimes it was not safe to stop every mile and so the nearest safe point had to be used instead. They also had problems with spurious rhythmic noises and background hiss levels. Preliminary results suggest some sort of correlation between these bats and pasture land as a lot of the Noctule/Serotine passes were recorded near to areas such as stables and paddocks and a nature reserve where grazing had been reinstated. Kent Bat Group are hoping to repeat the method next season with refinements. Further information can be obtained from Shirley Thompson of Kent Bat Group (5 Manor Road, Tankerton, Whitstable, Kent, CT5 2JT, shirleythompson@nationwideisp.com).

SHORT-TAILED BATS ON CODFISH ISLAND



During the winter of 1998, the New Zealand Dept of Conservation distributed poisoned cereal baits by air over Codfish Island Nature Reserve (Whenua Hou) which has an area of about 1350 hectares. This was to try and eradicate Kiore which are an introduced species of small rat (*Rattus exulans*). However, Whenua Hou supports a large population of Short-tailed bats (*Mystacina tuberculatus*) which are active in winter and their diet includes a large proportion of ground-dwelling invertebrates known to consume poison baits. To try and reduce the effect the baiting would have on the resident bat population approx. 400 bats were held in captivity for 15 weeks whilst the baits were distributed and taken up. Just before release, some 2.5 million mealworms later, the average weight of a bat in the colony had increased by 2 grammes! The researchers reported that they did not find any significant statistical difference in the behaviour or activity at roosts for radio-tagged bats when the pre-drop and post-drop of poison periods were compared. This same test was also applied to wild bats and released captive bats. They concluded that the eradication programme had not had a detrimental effect on the island's bats.

Throughout the eradication operation the activity and behaviour of wild bats was monitored by following 28 radio-

tagged bats and using time-lapse infrared video recorders at 73 roosts. The use of a helicopter helped with the tracking but some work was done on foot. The roosts held up to 1,813 bats that were generally active most of the night. About three-fifths of the radio-tagged bats were active on the nights that monitoring took place dividing their time on average between 4 roosts. They stayed an average of 5 days in a roost. The bats alternated between congregating in large numbers in communal roosts for short periods and roosting alone for a longer time. Winter temperatures on the island averaged between 4 and 6 Celsius but on some nights it went down to -1 or -2 Celsius. Even so, the bats were still active finding insects on the ground or in their roosts attracted by the bat guano.

Short-tailed Bat Facts

The endangered lesser short-tailed bat (*M. tuberculata*) is an ancient species unique to New Zealand and is found only at a few scattered sites. It is divided into three sub-species: the kauri forest short-tailed bat, found only at two sites in Northland and one on Little Barrier Island; the volcanic plateau short-tailed bat, known from Northland, the central North Island and Taranaki; and the southern short-tailed bat, found on Codfish Island and in the northwest Nelson and Fiordland areas. The Lesser Short-tailed bat is the only member of its family, Mystacinidae, known to still survive. It is listed by the Department of Conservation as a 'species of highest conservation priority'.

- Short-tailed bats weigh 12-15 grams, have large pointed ears, a free tail and are a mousy-grey colour.
- Unlike most bats, which catch their prey in the air, the short-tailed bat has adapted to ground hunting and is one of the few bats in the world which spends large amounts of time on the forest floor, using its folded wings as 'front limbs' for scrambling around.
- Short-tailed bats are found in indigenous forests where they roost, singly or communally, in hollow trees. The bats go into a 'torpor' in cold weather and stay in their roosts. They wake up as soon as the weather becomes warmer.
- Thought to be a lek breeder, i.e. males compete for traditional 'singing' posts and 'sing' for a female.
- Its diet consists of insects, fruit, nectar and pollen and it is thought to be an important pollinator of the *Dactylanthus* or woodrose, a threatened parasitic plant which grows on the roots of trees on the forest floor.

A BETTER BREED OF BAT

(Mark Smyth, Northern Ireland Bat Group)

I have been a bat worker for 10 years but intensely so over the past 5 or 6. Turning up Pipistrelles every time can be a bit monotonous until a rarity turns up like Whiskered in the attic of a bungalow.

I was introduced a couple of years back as "an authority on bats" to a country estate owner. The owner replied that she has bats in the attic of her home, which is a very large Gentleman's Residence. An appointment was made to go back and a large roost of pipistrelles was counted. While chatting I was told that the mother had bats and so had some of her friends that also lived in large estates.

By following up these leads I have found roosts of the following bats:-

Nathusius Pipistrelle	<i>Pipistrellus nathusii</i> ,
Daubenton's bat	<i>Myotis daubentonii</i> ,
Natterer's bat	<i>Myotis nattereri</i> ,
Whiskered bat	<i>Myotis mystacinus</i>
Brown Long-eared bat	<i>Plecotus auritus</i> .

Country estate owners are very happy with their bats and accept them as part of country life and never report bats to those of us interested. These places always have a good range of habitats and roost sites that suit most of our bats. By visiting these places many of our rarer bats can be found and help give a better picture of bat distribution.

Over the last couple of years I have almost doubled known roosts for - Natterer's, Brown Long-eared and Whiskered bats.

KEEPING IN TOUCH

Due to changes at the University of Warwick, the Senior Common Room is no longer the Senior Common Room and therefore not available for hire. This means that in the future, our more formal talks and meetings will probably have to use a range of venues. But some members thought it would be a good idea to have a social evening once a month, where we can catch up on what everyone has been doing since the last time we saw them. The venue, chosen because it is central to the greatest number of Bat Group members, is The Virgin And Castle (public house), High Street, Kenilworth., where there is a fairly large sized car park close by in Bridge Street. So, mark every first Monday of the month (except Bank Holiday Mondays, when it will be the second Monday of the month) in your diary and come along for a relaxing evening.

CHRISTMAS PARTY

A drink, some nibbles and something sweet to eat. And the 'serious' bit, a talk about something or other. Yes, its Christmas Party time again.



This year's Christmas Party is at The Percival Guildhouse, St Matthew's Street, Rugby. Sorry if most of you haven't heard of the place, but we tried a couple of other venues (one too expensive. one too big), couldn't get in touch with

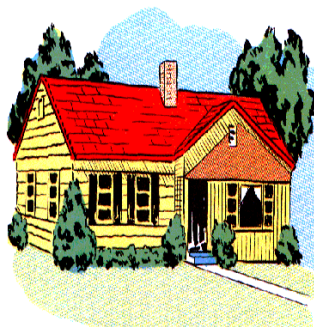
anyone about a third, and so, as we were running out of time, both to get the information out via the newsletter and find somewhere that still had vacancies in December, the Beresford room at the Guildhouse was booked. It is a reasonably sized room, and there's no extra charge for heating! There is also a public car park nearby which, as yet, does not charge for evening parking.

John Waller has offered to give a short talk explaining how all our batwork is being recorded so that eventually we can build up a reasonably accurate picture of Warwickshire's bat populations, preferred habitats, good years, bad years etc. Not to be missed.

Please bring nibbles/bottle of something, etc. for the 'buffet'.

JUST TYPICAL

Batgroup Chairman Paul Elliott has just moved house, and while clambering about in the attic (putting away all those boxes you can never find a home for straight away), he discovered bat droppings, at the southern end of the building. He says they look like Pipistrelle droppings, but he's keeping his fingers crossed that they might turn out to be Whiskered. It would appear that some of the droppings are reasonably



fresh, but as the building has, fairly recently, had new PVC soffits etc. it will be next Spring before he knows for sure whether he has bought a home with a roost

DATES FOR YOUR DIARY

Thursday 2nd November @ 7.30 pm

"Bats Of The World"

By Phil Richardson

Visitor's Centre, Coombe Abbey, Brinklow Road, Coventry

Monday 6th November @ 8 pm

Social evening.

Virgin And Castle (Public House)

High Street, Kenilworth

Thursday 23rd November @ 7.30 pm

Craig Fellowes

Police Wildlife Liaison Officer

Visitor's Centre, Coombe Abbey, Brinklow Road, Coventry

Thursday 14th December @ 7.30 pm

Bat Group Christmas Party

Beresford Room
The Percival Guildhouse
Rugby.

