

# **A MAMMAL ASSESSMENT OF THE GROUNDS OF ST. ITA'S, PORTRANE**



**Brian Keeley B.Sc. (Hons) in Zool.**

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The mammal fauna of St. Ita's Portrane was examined in 2005 during two periods; on two dates in September for bats and on November 24<sup>th</sup> for all other mammals.

## **Bats**

Two bat detectors were used to confirm the species of bat present: a QMC Mini 3 heterodyne bat detector and a Pettersson D240X heterodyne and time expansion bat detector. The time expansion detector was connected to a Sony Minidisc MZ NH600 to allow for signals to be recorded and analysed on sound analysis software ("Batsound") for confirmation of identification.

The bat fauna was only examined from an external examination of all sites with the hospital grounds. This was for two reasons. Firstly, this was to reduce the problems of arranging access as the management of the hospital were anxious to keep disturbance to patients to a minimum.

Secondly, the number of buildings within the hospital that would require assessment for bats is substantial and the time required to carry this out and the organisation of access would be very time-consuming (requiring a minimum of four days if all roofs are readily accessible).

A second night of bat assessment was undertaken due to heavy rain interrupting the assessment on the first night and ending all observations after an hour and a half. However, bat activity levels were similar on the second night but over the same period with activity dwindling after two hours. Observations continued until sunrise at which time all bat activity had ceased. No bats were seen entering any buildings during morning observations.

Mammal evidence was further sought on November 24<sup>th</sup> 2005. This involved an examination of all green areas, in particular woodland / forestry for tracks, burrows, dung, feeding signs etc. A pedestrian passing through the grounds on September 6<sup>th</sup> 2005 reported observations that are included here and any mammal observations made by the author in September are also included.

## Species of bat present

<b>Common pipistrelle</b>	<i>P. pipistrellus</i>
<b>Soprano pipistrelle</b>	<i>Pipistrellus pygmaeus</i>
<b>Leisler's bat</b>	<i>Nyctalus leisleri</i>
<b>Brown long-eared bat</b>	<i>Plecotus auritus</i>

The most numerous species of bat was the common pipistrelle. Most activity was along a row of street lights. This is surprising given that in an assessment of the coastline in 2004, soprano pipistrelles were the more numerous pipistrelle species. (Bats along the Fingal Coastline, An assessment for Fingal County Council Parks Department by Brian Keeley B.Sc. (Hons) in Zool. December 2004). What may account for this is that this assessment concentrated on the internal sections of St. Ita's away from the exposed coastline. Possibly, these two species specialise in the two different areas.

Soprano pipistrelle was almost absent from the hospital with the exception of a male bat calling from the perimeter of the main hospital block. This bat may have been availing of the hospital as a mating roost.

A Leisler's bat was perching in an oak tree in front of a disused section of the hospital (see Figure 1) and emitting mating calls over a period of thirty minutes. This bat also fed over the green areas of the hospital.

One brown long-eared bat was noted flying down the main avenue between the two forestry blocks and along the lane leading to neighbouring farmland. St. Ita's would provide perfect roosting opportunities for this bat, given the number of attic spaces, some of large size.

In all there are numerous roosting opportunities on this site, from detached, semi-detached and terraced housing to large hospital buildings, churches, industrial chimneys, a round tower, farm buildings, derelict hospital wings etc.

In relation to feeding areas for bats, the majority of trees adjacent to the site are part of a conifer plantation but there are individual mature deciduous trees scattered throughout (such as the oak tree in Figure 1) as well as a deciduous stand of trees.



**Figure 1: Bats and roosts at St. Ita's, Portrane.**

**Leisler's mating roost in oak tree (above).**

**Examples of buildings with potential as bat roosts (below).**

## Other mammal species

<b>Badger</b>	<i>Meles meles</i> (feeding)
<b>Rabbit</b>	<i>Oryctolagus cuniculus</i>
<b>Irish hare</b>	<i>Lepus timidus hibernicus</i>
<b>Brown rat</b>	<i>Rattus norvegicus</i>
<b>Fox</b>	<i>Vulpes vulpes</i>
<b>House mouse</b>	<i>Mus musculus</i>
<b>Wood mouse/ Field mouse</b>	<i>Apodemus sylvaticus</i>

## Species likely to be present

<b>Hedgehog</b>	<i>Erinaceus europaeus</i>
<b>Stoat</b>	<i>Mustela erminea hibernica</i>

Badger activity on the hospital grounds was especially noteworthy during the bat assessment in September. On the first night of observations one badger was encountered running back through the gate leading to the forestry. On the second night, a badger was observed travelling through this gate along the edge of the disused hospital unit and along the grassland here until it eventually emerged onto the road. From here it travelled around the corner and into the wood in the middle of the hospital grounds.

Later in the night, two badgers were observed for over twenty minutes, feeding on the vast lawn in front of the apartment block. Noises from the vegetation suggested the presence of a third badger within twenty metres of these two badgers.

A badger was startled on a road nearby (leading to a detached house, Portrane House) heading back towards the forestry area approximately one hour later.

Observations on badger movements in September indicated that the badgers commenced their feeding activity on the hospital grounds in the grassy area around the disused hospital wing.

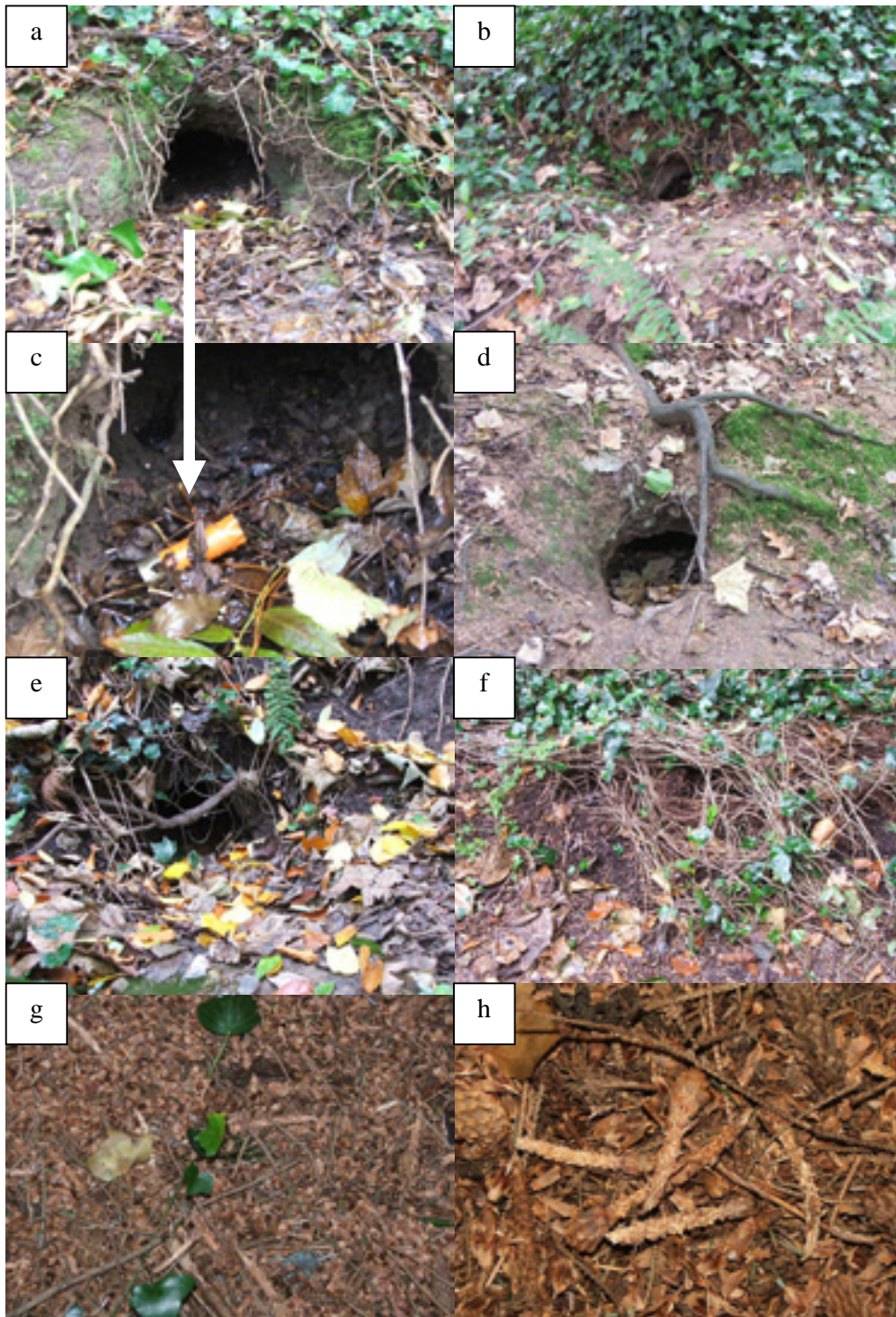
From here, they progressed to the rest of the grounds. A latrine was discovered in this area as well as tracks leading from the gateway to the forestry and onwards towards the centre of the hospital grounds. Tracks noted in November indicate that badgers still feeding regularly on the hospital grounds during the winter months.

A number of small setts were identified but no main setts were evident within the grounds or the adjoining forestry. In all, three setts were noted but none of these showed signs of usage at the time of examination.

Badger feeding signs in November were evident especially along the main avenue through the forestry.

The most obvious mammals at St. Ita's were rabbits based on the presence of warrens although few rabbits were actually encountered during this assessment. In 2004, a hare was noted at the section of the hospital closest to the seafront. Hares were not encountered during this assessment but they are easily overlooked in any assessment as they may hide from view, do not use faeces as a territorial marker and do not dig a burrow or create any other obvious alteration to the terrain.

A regular walker noted seeing bats in the area where they were most in evidence during this study (at street lights), reported regular sightings of a fox and also an owl. This was reported as a barn owl but it is difficult to confirm this. The presence of the forestry would also create suitable habitat for long-eared owls. This, no doubt is addressed in the accompanying bird survey of the hospital.



**Figure 2: Badger sett entrances (a) to (e) and mammal feeding signs (f to h).** These setts may be currently occupied by rabbits. Evidence of shooting close to the entrance is indicated by an arrow (a) and (c). Badger feeding signs and cones gnawed by a wood mouse are shown in the final 2 photos (g and h).

### **Significance of St. Ita's Portrane for Mammals**

The buildings must be considered to be highly likely roost sites for bats. Many hospitals are availed of by bats as maternity roosts (e.g. St. Mary's Hospital, Chapelizod, Dublin, JCM Hospital, Blanchardstown, Dublin Belvoir Park Hospital, Belfast etc.), and they may very well hibernate in parts of such a complex in winter. Trees have been shown in this study to be used by bats as roost sites also. There are numerous roosting opportunities for bats within the grounds. The period of study, September, may be too late to establish if bats are breeding within the hospital and possibly the significance of the site is greater in midsummer.

Badgers are clearly the most imposing mammal to avail of the grounds and to most people these would also be the most obvious and easily observed mammals without the aid of specialist equipment such as bat detectors.

Overall, the site clearly has advantages for the mammals of the Portrane area.

### **Monitoring of the Mammal Fauna of St. Ita's Portrane**

The buildings should be checked prior to any work that would put bats at risk (either alterations or demolition) to identify if they are bat roosts, which species occur and how abundant bats are within the buildings.

Monitoring of bat activity may be carried out by an examination from sunset and should be carried out until sunrise preferably in the period June or July to determine if bats breed within the hospital buildings.

Other mammals could be monitored by a summer visit also as there are few areas where vegetation would obscure abodes or signs of feeding.