

ROYAL ORDNANCE, BISHOPTON



REMEDIATION AND RECLAMATION EARTHWORKS

ENVIRONMENTAL STATEMENT

APPENDIX 14.5 FUNGI SURVEY

October 2006

ROYAL ORDNANCE

BISHOPTON

Fungi Survey



Flammulina velutipes – recorded at the Bishopton site

Surveyed December 2002

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Photographs used in the report were taken by, the author of the report, during the survey visit on the 4th December 2002. No copyright is attached.

FUNGI REPORT – BISHOPTON

1 Introduction

As part of the process, for an overall ecological assessment of the BAE site, at Bishopton, Renfrewshire, a decision, was taken, to include a survey of fungi, although it was recognised that this was rather late in the year for recording purposes. Allied to that fact, it was also noted that 2002 was a particularly poor year for fungi, in general terms.

Further to the survey work, an attempt was made to determine whether previous survey work, for fungi, had been carried out at the site. However, this proved to be unsuccessful, although it is likely that little information was held, if any, on fungi at the site, due to the restrictions of access to the former Royal Ordnance Factory grounds.

2 Survey Methodology

A more systematic approach would have been adopted for the survey, if, it was being carried out at a more appropriate time. The site could have been broken down into the range of established habitat types and possibly, maturity of those habitats, in relation to their developmental stages. However, as time was limited and weather conditions had been poor, a general walkthrough was undertaken.

3 The Important Role of Fungi

Fungi, as primary decomposers, are a vital component in the ecological cycles. It has been estimated that approximately 80% of all plants grow in a mutual association with fungi and that for many plants that association is fundamental for their existence as a species. In the United Kingdom there are an estimated 20,000 native species of fungi, many of which most of us will never see. However, there are others that would be instantly recognised by many people, even though their names may not be known – *Amanita muscaria* (Fly agaric), *Coprinus comatus* (Shaggy ink cap), *Piptoporus betulinus* (Birch polypore).



Piptoporus betulinus

Auricularia auricula-judae

The fruiting bodies of fungi also prove to be a food source for a range of animals, including many mammals and insects and are therefore, an important part of the food chain.

3.1 Species Associations

Examples of species associations, between fungi and a range of plant genera, can provide some understanding of the possible numbers of fungi species that could, potentially, be recorded at the site. The following plant genera have all been recorded at the site during recent survey work.

Information on associated species taken from the British Mycological Society website.

Trees and shrubs: Number of associated fungi species:

Fagus	2261
Quercus	2252
Betula	1613
Pinus	1602
Salix	1165
Fraxinus	1031
Alnus	871
Acer	857
Picea	792
Ulmus	626
Larix	523
Crataegus	438
Tilia	310

Grasses, Rushes & Herbs:

Poaceae	1346
Urtica	334
Juncus	258
Phragmites	188
Epilobium	174
Heracleum	166
Deschampsia	151
Cirsium	134
Filipendula	124

4 Site Habitats

Habitats at the site include, a range of grassland types, broadleaved woodland, conifer woodland and more mixed woodland conditions. Many individual mature trees are also located throughout the site, either scattered or in some cases, forming avenues of trees, along the internal road network.

In general, the wider the range of habitats and the quality of those habitats, in natural terms, the greater the range of fungi that could, potentially, be recorded. An example of this can be found within the genera *Hygrocybe* (wax caps). In recent years the genera has been used to evaluate the quality of grassland habitats. Diversity of species within the genera is related to the nature of the grassland – whether it is unimproved or improved, grazed or mown, wet or dry – and the removal or implementation, of management regimes, can have direct implications on the number of species recorded. Similarly, the tidying up of woodland – the removal of, dead, standing or fallen timber – can have implications for the opportunities for fungi, within those habitats.

5 Site Records

A survey for fungi was carried out on December 4th 2002. Twenty-two species were recorded, more or less exclusively within the woodland habitats at the site. A single

record was taken during field survey work on September 18th 2002 (by David Mellor) of *Hygrocybe calyptriformis*. The species was recorded on mown grassland close to the main gate.

Hygrocybe calyptriformis is a National Biodiversity Action Plan (NBAP) species. It receives general protection under the Wildlife and Countryside Act 1981 and has, provisionally, been classified as a Low Risk species in Great Britain. The species is generally found in grazed or mown grassland. Consideration of the requirements of the species should be taken into account, where practicable, under any proposed changes.

Table 1 contains the list of species recorded.

Scientific Name:	Common Name (if known):
<i>Auricularia auricula-judae</i>	Jew's-ear
<i>Coriolus hirsutus</i>	
<i>Coriolus vesicolor</i>	
<i>Exidia thuretiana</i>	
<i>Flammulina velutipes</i>	Velvet shank
<i>Fomes fomentarius</i>	
<i>Hemimycena pseudogracilis</i>	
<i>Heterobasidion annosum</i>	
<i>Hygrocybe calyptriformis</i>	
<i>Hypoxylon fragiforme</i>	
<i>Lycoperdon pyriforme</i>	
<i>Marasmius androsaceus</i>	Horsehair fungus
<i>Mycena galericulata</i>	
<i>Nectria peziza</i>	
<i>Neobulgaria pura</i>	
<i>Neobulgaria pura var foliacea</i>	
<i>Piptoporus betulinus</i>	Birch polypore
<i>Pleurotus ostreatus</i>	Oyster mushroom
<i>Postia caesia</i>	
<i>Scleroderma citrinum</i>	Common earth ball
<i>Stereum rugosum</i>	
<i>Stereum sanguinolentum</i>	
<i>Xylaria hypoxylon</i>	Candle snuff

TABLE 1

6 References

British Mycological Society website – www.britmycolsoc.org.uk

Jordan M. The Encyclopedia of Fungi of Britain and Europe. David and Charles, 1995

Kibby G. The Pocket Guide to Mushrooms and other Fungi. Dragon's World Ltd, 1991