

Giant Puffballs in Queen's Park, Glasgow

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The giant puffball (*Calvatia gigantea*) is one of our most spectacular species of fungi and the occasional occurrence of extremely large specimens may result in media news reports (BBC, 2004, 2016). It has a wide and scattered distribution in Scotland, with quite a few records in the east but rather few in the west (NBN, 2017). Around Glasgow it has been recorded at Carmunnock (1986) and at Lochwinnoch (2013) but until now has not been found in Glasgow itself.

On 14th August 2015 a local naturalist (John McOwat) reported the presence of unusually large puffballs in Queen's Park on the south side of Glasgow. Prompted by this report, the park was visited the same day by local members of the Clyde & Argyll Fungus Group (CAFG). The puffballs were found close to the main footpath just west of Camphill House. They were on bare ground with some leaf litter in a wooded area with lime and holly trees, and an under storey of privet bushes. There were seven puffballs, with three small ones, around 4cm in diameter, two of medium size, at 6 and 7cm diameter and two larger ones with largest diameters 12 and 15cm (Fig. 1). Unfortunately, by 18th August all the puffballs, except one at 7cm diameter, had been split open or broken into several pieces.

The site was revisited one week later on 25th August. The single surviving puffball (previously 7cm diameter) was still attached to the substratum (at NS 57626 62183) and intact with just some minor grazing damage by slugs. It was oval in shape and had now expanded in size with axis diameters of 23 x 19.5cm and a height of about 15cm (Fig. 2). Its large size, white colour, and characteristic leather-like surface texture allowed confirmation of its identity as the giant puffball, *Calvatia gigantea* (Fig. 3). Its size and colour made it quite conspicuous – looking like an old football lost in the park bushes.

Another week later, on 2nd September, the puffball had attained a size of 30 x 27 cm, but had become



Fig. 1. Two giant puffballs (diameters 12 and 15cm) in Queen's Park on Aug 14th 2015. (Photo - Jonathan Mitchell).



Fig. 2. The largest giant puffball (23cm wide) in Queen's Park on August 26th 2015, with 30cm ruler. (Photo - M. O'Reilly).



Fig. 3. The same giant puffball as in Fig. 2 showing leather-like texture and indentations from slug grazing. (Photo - M. O'Reilly).

detached and was rolling freely around and quite severely gouged by slug grazing (Fig. 4). A new group of three white puffballs (two whole but detached at 3 & 7.5cm diameter, and one smashed, perhaps around 10cm diameter) appeared on 9th September about 10 metres away (south) at the border of the bushes and the main path. However, these too were crushed or dislodged by the subsequent week.



Fig. 4. The largest giant puffball (around 30cm wide) in Queen's Park on 2nd Sept 2015, with 30cm ruler. (Photo - M. O'Reilly).

The following year, on 17th June 2016, two new giant puffballs were found in the same vicinity beside the base of a holly tree (NS 57625 62170) and were photographed *in situ* (Fig. 5). They had diameters of about 12 and 16cm but both were dislodged by the following day.



Fig. 5. Giant puffballs (12cm and 16cm diameter) in Queen's Park, June 2016. (Photo - Sheila Connelly).

The area was not revisited until 17th July 2017 when a single large white puffball (about 25cm wide) was observed at the base of the same holly tree. By 7th August 2017 the puffball (now 27.5cm x 26cm, and 15cm high) had detached and was rolling loose among the leaf litter (Fig. 6). The spent puffball had heavy damage from grazing slugs as well as numerous dead leaves and twigs adhering to its surface. Internally it had a yellowish spongy

texture with an unpleasant smell, like a dead animal. Clouds of spores issued from the puffball when pressed indicating it had attained maturity.



Fig. 6. Mature detached giant puffball around 27cm diameter, in Queen's Park, August 2017. (Photo - M. O'Reilly).

It is evident from these records that a small colony of giant puffballs has become established in the park, but it seems to be difficult for such noticeable fungi to attain maturity in this location as the area is heavily infested with dogs, grey squirrels, and over-inquisitive children.

Glasgow's parks with their variety of broad-leaved and coniferous trees, their range of grassland and woodland habitats, and easy access from paths, offer ideal hunting grounds for fungus enthusiasts. The numerous parks in Glasgow have long been recognised for their fungal biodiversity and a handy guide to common fungi of the Glasgow's parks was produced over fifty years ago by Marshall (1952). Subsequently, field guides to help with identification of fungi became available for enthusiastic amateurs or students (e.g. Lange & Hora, 1963; Watling, 1973) and since then a multitude of superbly illustrated field, or photographic, guides to mushrooms and toadstools of Britain have been published (e.g. Phillips, 1981; Bon et al., 1987; Sterry & Hughes, 2009; Buczacki et al., 2012).

The new find of giant puffballs is the first record for Glasgow and highlights that, even in relatively well surveyed areas, new species can still be found. Many other new fungus species have been added to the Glasgow area in recent years by forays undertaken by CAFG.

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