Lichens seen in St Lawrence Churchyard

We have been told that the churchyard is a good place for lichens due to varied habitats. Fifty species have been found easily but not, so far, some of the common churchyard species, but they may be there somewhere, we are still early days into our search.

So what is a lichen?

A lichen is a symbiosis. That means that it is two or more organisms living together such that both are more successful within the partnership than they would have been if they were living on their own. With lichens the basic components of this partnership are:
a fungus called the 'mycobiont' and
one or more algae and/or a cyanobacteria called the 'photobiont'.
The true nature of the symbiosis between these two partners is still being debated by scientists and some would maintain that the fungus is a parasite on the photobiont. However, in many cases, the algae in question cannot survive alone in the habitat occupied by the lichen any more than the unattached fungi can, so it is not realistic to use the term parasite.
As far as science has been able to discover few if any of the fungi involved can survive and reproduce in the wild on their own. Each lichen species contains a different species of fungi and so it is according to the species of fungi that lichens are classified. This classification is generally based on characteristics of the thallus and reproductive organs. There are between 13,500 and 17,000 species of lichen depending on whose classification you believe. About 20% of fungal species are involved in lichen partnerships.

And, back to the churchyard:
There's quite a lot of copper, including on the fascinating grave board and tomb, and copper is toxic to most fungi and therefore to most lichens, but one species, *Psilolechia leprosa*, is able to tolerate it; it looks a bit like breadcrumbs.

The boundary wall is good for lichens that like acid stone and brick, including *Cladonia fimbriata*, which looks like miniature wine glasses, and *Ochrolechia parella*, a pale crust with large pinkish disc-like fruiting bodies; a related species (known as cudbear) was one used as a source of dye. Sandstone and tile on the church building also have some lichens that specialise in acid habitats, including *Tephromela atra*, which has prominent black discs and grows on sandstone on a buttress on the North side of the church.