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Museum pests from pigeon nests

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There is now quite a voluminous literature on museum pests and their control and prevention. Birds' nests are generally known to be the natural habitat of several native insects that have subsequently taken advantage of human activity and become distinctly synanthropic. Those which feed on hair or feather, the keratin digesting clothes moths, are amongst the most familiar in this category. In addition introduced species use nests in appropriate situations. This note describes the contents of pigeon nests in relation to a museum situation. The pigeons are the town or feral strains of the rock-dove (*Columba livia*)

In advance of several events in Glasgow, the Garden Festival (1988) and the European City of Culture (1990) celebrations, investment in the city environment became more of a priority. One of these included the external renovation of the main museum building. Stone cleaning, stone replacement where necessary, and roof and rooflight repairs were carried out. For a few years previously windows in the turrets had not been replaced when broken and pigeons nested in these areas. These turrets and associated baroque embellishments (the building is officially described as French renaissance with Hispanic interior) only have access for maintenance purposes so the situation had apparently been tolerated or ignored. Many of the nests had signs of generations of occupation, being very thick and having layers of sticks, droppings and other debris spilling over a considerable area. Feathers and the remains of dead squabs elevated the range of organic nutrients.

The contents of one nest were quantified in June 1987. Three other nests were examined also for insects, from which no additional species were seen. The nests were sealed in polythene bags within the roof space before taking to the laboratory. The details of the contents of the one are as follows:

Lepidoptera

Hofmannophila pseudospretella (White shouldered house moth)	10

Coleoptera

Niptus hololeucus (Spider beetle)	43
Dermestes peruvianus (Larder beetle)	15

There were also a variety of mites and some spiders, staphylinid beetles

and several carrion feeding blowflies. The opportunity to examine more nests was prevented by their removal by contractors working on the building renovation programme.

Dermestes peruvianus is the most frequently identified member of the genus brought into the museum as enquiries from the Glasgow district. Prior to examination of the pigeon nests this beetle was also being found alive within the main hall of the museum wherein a coffee bar is managed. No trace or source of infestation could be located there or elsewhere but a regular trickle of specimens were being brought to the Natural History Department by shop and security staff. It was only subsequently that I realised the source was from above, in the roof space. The hall has a ceiling some 80 feet high and in order to maintain the chandeliers winding mechanisms are located within the roof space above. In this area pigeon nests were common and the beetles had clearly fallen through the chain holes which allowed the lights to be lowered.

In this space alone over twenty nests were occupied or had been in use in the previous season. The potential numbers of insect museum pests therefore would be in the order of thousands of individuals actually living within the fabric of the building at the time. A secondary effect was the nuisance factor which was reported from offices which were immediately below some of the turrets. Blowflies were common, particularly so in warm weather when the windows were open, presumably attracted to or originating from the nesting areas above. Dead birds were found in the spaces immediately above these offices.

Discussion

This account of some insects in pigeon nests formerly in Glasgow Museums is given as a specific example of a pest problem in a museum context. Whereas the phenomenon is well known in general terms there appears to have been few documented instances of such occurrences actually in any one museum. Although there were occasions when beetles were found in the public areas of the building, ascribed to the existence of nests in the roof space, no actual damage to the collections has been identified as a result. An outbreak of moth, in this case *Tinea pellionella*, was found in the fur of a Red Squirrel on display at the time but could not be traced to any particular origin. (That species was not found as a component of the pigeon nest fauna.)

No complacence should result from any unproven associations as some of the more severe museum pests are particularly fond of birds' nests, especially *Anthrenus spp.* (Armes, 1984). *Anthrenus sarnicus* is specifically mentioned as feeding as larvae on the carcase of a dead pigeon in a domestic situation (Woodroffe, 1967). It is not that there is something inherently attractive in pigeons but that it is a common bird and has a habit of living and dying in urban areas. This makes it available as a prime source of food for certain insects. The message would appear to be that museum buildings should be carefully screened for the pigeon problem. Preferably, building design should minimise this risk but high Victorian architecture does exactly the opposite so

that Kelvingrove and The Natural History Museum in London, for example, need to have particularly vigilant building maintenance teams.

It has generally been considered that some species of pests are not present or as widespread in the north of Britain. However, this assumption has recently had doubt cast upon it by the circumstances of the discovery of two hitherto 'southern newcomers' within the premises of the Royal Museum of Scotland in Edinburgh (Shaw, 1991).

Nevertheless, the above list of potential pests actually reared from the nests is impressive enough in numerical terms if not species variety in this particular instance.

References

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