



Tree Damage Alert No 131

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Damage in Silence

An unexpected feature of the recent weather has been silence. Snow fell from generally windless skies, blanketing the ground and deadening the everyday noises we take for granted. Then while we all enjoyed the beauty and recreation opportunity provided by the unusual snow fall damage was being caused to both trees and shrubs.

There are two types of snow – clouds with temperatures below about -30°C (Anon 1962) are associated with small flakes or snow pellets, whereas snow formed at temperatures between 0°C and about -10°C has large flakes that have been described as goose down. It was the latter that fell earlier in February. It is these large flakes, which tend to cling together and make good snowballs, that accumulated on branches causing them to brake under the cumulative weight. Particularly vulnerable are evergreens notably Cedars (*Cedrus* spp.) and there have been reports of trees in this genus suffering – some would say destroyed by the loss of branches. Its clearly too late now but timely recognition of a build up of snow on trees can be treated by shaking the branches, if they can be reached safely.

Reports in the National Press have referred to estates, particularly in the west country, where whole trees have been destroyed, that is broken apart or uprooted. Some of these are said to have been Oaks over 500 years old. Avoidance of such damage is probably dependent on circumstances and resources. However, the trend to retain aged standing trees (e.g. for

wildlife conservation) results inevitably in an increased risk of snow damage.

Snow of either type can build up on the ground smothering herbaceous vegetation. This 'abuse' of plants trying to struggle through cold conditions could be expected to cause serious damage, but spring flowering herbaceous plants, and even the flowers of some winter flowering trees and shrubs appear to have come through the conditions with minimal damage. However, there is secondary damage that occurs when snow has accumulated. When deep snow melts, and the countryside returns to a more familiar appearance, localised bark stripping at heights above that normally expected in winter becomes obvious. Rabbits cut off from their herbaceous forage sit on top of the snow and chew the bark. A characteristic of rabbit damage is that damage starts at the upper level of the snow and can extend upwards for about 0.45m, but that is not all. As the snow melts during the day fresh bark is exposed that in turn is vulnerable to stripping later at night. Young and old trees alike can be damaged in this way, and the damage may girdle the trunk.

The snow has now melted and is largely forgotten, but there is important work for arboriculturists. The accumulations of snow on branches will not necessarily have caused fracture – that is the easy scenario – branches can be cracked longitudinally as a result of having been twisted. Branches weakened in this way may fail under lesser forces than might be normal. Inspection of trees, particularly in high risk areas, would be a prudent precaution along with appropriate remedial/preventative actions.

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Reference

Anon (1962), *A course in elementary meteorology*. Meteorological Office, HMSO, London.

This is one of an occasional series of Tree Damage Alerts produced for the benefit of the arboricultural profession and issued by the Arboricultural Advisory and Information Service.