

Ancient woodland features: sensitivities and management wallchart

Feature	Sensitivities	Example solutions
<p>Woodland plants</p> <p>The main consideration with woodland plants is that once lost, they will generally take a very long time to return, if at all. The focus for protection should be to avoid their destruction and to avoid them being out-competed by aggressive weedy species.</p>	<p>Herbicides. Most ancient woodland plants are susceptible to herbicides eg used for weeding around trees, or drift from use in adjacent arable areas.</p> <p>Mechanical disturbance. Excessive or extensive ground disturbance, for example from timber extraction, which damages ancient woodland plants and their roots/bulbs/rhizomes.</p> <p>Sustained heavy shade. Blocks the light and suppresses the growth of ancient woodland plants, which can lead to long term loss. This could be from conifer crops, dense thicket-stage plantations or rhododendron.</p> <p>Smothering. Conifer needle litter, brash and bracken can create a dense thatch which the ancient woodland plants cannot grow through and blocks the light.</p> <p>Full light conditions. This can be a problem when the canopy is suddenly opened following a long period of dense shade, as in PAWS, or when canopy closure is likely to take a long time. In both cases coarse fast growing plants can out-compete ancient woodland ones.</p> <p>High nutrient levels. Favouring weedy species. Often resulting from nutrient run-off from agricultural fields.</p> <p>Browsing. From sheltering livestock or deer. Ancient woodland plants may be completely lost if browsing is sustained or intensive.</p>	<p>Avoid pesticides; use shade to suppress weeds; buffer ancient woods with no-spray zones; use stump or stem treatments on invasive species like rhododendron.</p> <p>Record flora concentrations and plan extraction routes accordingly. Time extraction and other activities to avoid wet seasons when the risk of damage to soils and therefore plants is greatest.</p> <p>Thin and gradually replace densely shading plantation crops with semi-natural species. Re-space thicket stage plantations early. Where rhododendron is invasive, take an active and strategic approach; consider non-chemical options first and where needed work with neighbours.</p> <p>Phase-out pure conifer stands; avoid brash concentrations, especially along ride edges.</p> <p>Retaining some shade/canopy can prevent weedy species from taking over. Adopt continuous cover approaches or ensure that underwood, advance regeneration or coppice regrowth is strong before removing canopy. In-cycle coppice will generally re-establish canopy quickly enough.</p> <p>Target inputs through a nutrient management plan; create 'buffer strips' or wide headlands next to ancient woods; take practical precautions such as avoiding muck-spreading during wet weather.</p> <p>Control stock where there are ancient woodland features. Reinstate fence-lines which have retreated behind woodland edges. Work with neighbours to actively manage deer numbers.</p>
<p>Woodland soils</p> <p>Woodland soils, and the biological communities found in them, have relatively undisturbed histories. The main consideration is to avoid disturbance.</p>	<p>Mechanical disturbance. Through ploughing, excavation, drainage or extraction in wet conditions. This compacts and changes the soil profiles and can damage soil communities.</p> <p>Chemical damage. Pesticides, fertilisers and other chemicals such as mineral oils and fuels from machinery can damage or destroy sensitive soil communities.</p> <p>Changes in soil chemistry. Acidification from conifer crops or importation of roading materials can change soil characteristics making them unsuitable for soil biology in the long term.</p>	<p>Avoid excavation of previously undisturbed soils (ie clearing old ditches is fine, but avoid digging new ones) and time operations to avoid wet seasons.</p> <p>Avoid chemical use; ensure fuel and hydraulic lines are secure; site fuel bowsers with care; have plans and equipment for dealing with spillages.</p> <p>Phase-out pure conifer stands; use locally sourced and inert roading materials.</p>
<p>Old trees & deadwood</p> <p>The main considerations for old trees, deadwood, and the plants and animals that live with them are to take things slowly, and to make provision for future old trees and sources of deadwood.</p>	<p>Abrupt loss of surrounding canopy. From clearfelling or re-coppicing after long-term dereliction. Can lead to instability, scorch or harm to associated plants and wildlife.</p> <p>Overtopping. Blocks the light from old trees resulting in a slow decline. Particularly a problem in PAWS where old trees were underplanted with densely shading conifers.</p> <p>Mechanical damage. Leading to loss of, or damage to, the tree or deadwood. This could be from extraction damage, excessive tree safety work or 'tidying up' of deadwood.</p> <p>Root disturbance. From timber extraction; roading in woods or ploughing close to old field trees. Can lead to a slow decline; linked to a cycle of reduced vigour and then disease.</p> <p>Age class distribution. Long-term replacement of old trees and sources of deadwood are often threatened by a lack of 'new recruits' in the landscape.</p> <p>Loss of surrounding habitat. Particularly in a wood pasture where open ground habitats have been lost to trees or agricultural improvement.</p>	<p>Phase any major changes to canopy structure over several years. For example, halo-thinning around old trees to stabilise them in advance of heavy operations.</p> <p>Gradually halo-thin around old trees to allow more light in. This can be relatively urgent, to be carried out even where no extraction or further silvicultural operations are planned.</p> <p>Plan timber harvesting and machinery movement to avoid old trees and fallen trunks and limbs. Make tree surgery a last resort; consider moving the risk rather than the tree eg moving a path.</p> <p>Avoid ground disturbance or compaction within an area at least twice the distance from the trunk to the canopy edge.</p> <p>Think of age structure- allow some mature trees to become the ancients of the future. Be aware of the long term need for tree regeneration and in open landscapes consider planting new trees.</p> <p>Be aware that ancient trees may be relicts of wood pasture systems and take advice to manage accordingly. See www.ancient-tree-forum.org.uk</p>
<p>Human traces</p> <p>The principal consideration is that new activities should not obliterate activities that came before.</p>	<p>Mechanical disturbance. Damaging or destroying old features. This may be from timber extraction, new roading or upturning of roots when trees are blown over.</p> <p>'Sanitisation'. Clearing traces of previous activities, such as conifer planting, because they are now considered unfashionable.</p>	<p>Mark features on a map or with hazard tape as no-go zones for extraction machinery. Take action to stabilise top heavy trees (eg re-cut outgrown pollards or coppice) on especially valuable human traces.</p> <p>Restrict 'restoration' activities to the removal of threats to ancient woodland features rather than removing all traces of previous use.</p>

For more specific advice on PAWS, refer to the best practice guidance 'The conservation and restoration of plantations on ancient woodland sites'. Visit: woodlandtrust.org.uk/publications