DORSET LOCAL NATURE RECOVERY STRATEGY HABITAT ASSEMBLAGES

Habitat assemblage:	Species of veteran and ancient trees and deadwood features of old growth woodland
Broad Habitat type:	Woodlands
S41 and Priority Habitat type:	Lowland Mixed Deciduous Woodland Wood-pasture and Parkland Lowland Beech and Yew Woodland
Composite species assemblages:	Saproxylic Invertebrates associated with dead wood habitats and veteran trees in old growth woodland Lichens of old growth woodland and wood-pasture Bracket, crust and other saprotrophic fungi of old growth woodland and wood-pasture

Habitat assemblage description:	Old growth woodland is a particular woodland type which has several cohorts of trees but particularly a generation of trees '*beyond their natural age*' more commonly known as veteran and ancient trees, plus other features such standing dead trees and fallen dead wood. In Dorset old growth woodland is mainly found in areas formerly managed as wood-pasture and in ancient parkland. Certain old growth may be found at a very localised level with coppice-with-standard woods that were traditionally more intensively managed. Since the cessation of widespread coppicing old growth features are becoming more widespread including 'overstood' Hazel stools. Old growth features can also occur in wet woodland and in older secondary woodland at the edges of heathland. Species groups particularly associated with this habitat include beetles, flies, hoverflies, fungi and lichens. The first two groups are probably under-recorded in the county, but recent surveys using vane traps have shown we have sites of at least regional importance for saproxylic beetles.

Other related assemblages:	Species of ancient and long-established woodland Species of wet woodland Species of wayside and pasture trees

Pressures and Threats	
PA05	**Abandonment of management/use of grasslands and other agricultural and agro-forestry systems (e.g. cessation of grazing, mowing or traditional farming)**
	The intensification of agriculture has led to the loss of in-field trees, including veterans which when found in park-like habitat are extremely important for invertebrates and lichens. Dead wood is often cleared away from beneath pasture trees and that reduces the habitat for many species.
PA13	**Application of natural or synthetic fertilisers on agricultural land**

	Application of artificial fertilizers and slurry in parkland and around pasture trees can lead to the enrichment of the bark of tree to the detriment of most old forest lichens that require nutrient-poor conditions. Continued application may also be damage the health of the trees by disrupting their associated ectomycorrhizal fungi and soil microbes.
PB02	**Conversion from one type of forestry land use to another**
	Conversion from low intervention semi-natural woodland to more intensive commercial forestry may have negative impacts by the removal of fallen dead wood and standing dead and diseased trees which often important for invertebrates and epiphytic lichens.
PB04	**Abandonment of traditional forest management**
	Traditional woodland management included a variety of types which including seasonal or temporary grazing and the pollarding of trees. These favoured species associated with veteran trees, deadwood features and old-growth woodland. In some traditionally managed woods such coppice-with-standards these features were very localised or sometimes absent.
PB07	**Removal of dead and dying trees (including debris)**
	Within commercial woodland trees of little or no value for forestry because they have fungi, are stunted, dying or dead are often removed. These are of great value for wildlife and should be retained unless they have a pathogenic disease.
PB08	**Removal of old trees (excluding dead or dying trees)**
	Retaining veteran and ancient trees with dead wood and decay features is key to the survival of deadwood species and a continuity of this habitat is crucial for their survival in the long term.
PB14	**Forest management reducing old growth forests**
	Any intensive woodland management that reduces the features of old growth woodland such as the removal of standing or fallen dead wood, the felling of veteran trees (and undershrubs) and the and removal of flowering understorey shrubs such as Hawthorn.
PI02	**Other invasive alien species**
	Rhododendron and Laurel and self-sown exotic trees can all have a negative impact on veteran trees. The first two can shade the trunks which is detrimental to many lichens. Non-native trees can grow quickly and over-top veteran trees and may eventually lead to the death of the tree.
PI03	**Problematic native species**
	Ivy Bramble and Holly can all be problematic under certain circumstances particularly for epiphytic lichens in woodlands and parkland. All can shade the trunk to the detriment on most lichens, Ivy can change the nature of the bark and lichens seldom re-colonise if the Ivy is removed of grazed. Grazing, including by deer, will normally prevent Ivy and Bramble from colonising the trunks of trees. However, climate change resulting in warmer winters has resulted an extended

	growing season and has led to an increase in these species and Holly in some woods.
PI04	**Plant and animal diseases, pathogens and pests**
	Pathogenic tree diseases can lead to the death of trees that support scarce and threatened species. Dutch Elm disease killed the vast majority of old elms leading the drastic decline of several invertebrates, fungi and lichens. Now Ash-dieback is posing a significant threat to veteran Ash trees. There are other diseases that could become a problem in the future.
PJ03	**Changes in precipitation regimes due to climate change**
	Changing rainfall patterns can lead to prolonged droughts which can cause stress to trees making them more susceptible to trees diseases and pathogenic fungi such as honey fungus. Higher rainfall can lead to softer ground making trees more vulnerable to wind-throw particularly when they are in full leaf.
PJ07	**Cyclones, storms, or tornados due to climate change**
	A increase in high winds and storm events could lead to the loss of more mature and veteran trees. Many rare invertebrates and lichens are only found on a small number of trees at an individual site. Therefore, if the host trees are being lost and no other suitable trees are found in the area there is a danger of local extinctions.
PK04	**Atmospheric N-deposition**
	Low levels of atmospheric pollution has a negative effect on epiphytic lichens, not eliminating them directly, but may reduce their ability to reproduce or colonise new trees, plus in the long term it can cause enrichment of the bark leading to a change in the lichen species favouring widespread nitrogen-tolerant species over the old forest lichens that mostly require nutrient-poor conditions.

Micro-habitat assemblage: Saproxylic Invertebrates associated with dead wood habitats and veteran trees in old growth woodland

Group	Species	Common Name	IUCN GB	IUCN Eng	IUCN other	Criteria	Threats / Pressures							
Beetles	*Ampedus elongatulus*		n/a	n/a	NT (EUSRL)	**2**								
Beetles	*Epiphanis cornutus*	a false click beetle	n/a	n/a	NT (EUSRL)	**2**	.	.	.	.	.	.	.	.
Beetles	*Hylis cariniceps*	a false click beetle	EN	n/a	n/a	**1**	.	.	.	.	.	.	.	.
Beetles	*Ischnodes sanguinicollis*	a click beetle	n/a	n/a	VU (EUSRL)	**1**	.	.	.	.	.	.	.	.
Beetles	*Lucanus cervinus*	Stag Beetle	n/a	n/a	NT (GRL) Europe	**2**	.	.	.	.	.	.	.	.
Beetles	*Mycetophagus populi*	a hairy fungus beetle	VU	n/a	n/a	**1**	.	.	.	.	.	.	.	.
Beetles	*Sphaerites glabratus*	a false blister beetle	NT	n/a	n/a	**2**	.	.	.	.	.	.	.	.
Beetles	*Triplax lacordairii*		RDB3	n/a	EN (EUSRL)	**1**	.	.	.	.	.	.	.	.
Hoverflies	*Ferdinandea ruficornis*		LC	n/a	n/a	**4**	.	.	.	.	.	.	.	.
Moths	*Cossus cossus*	Goat Moth		n/a	n/a	**5**	.	.	.	.	.	.	.	.
Moths	*Acrolepiopsis marcidella*	Ruscus Moth; Elusive Smudge	pRDB	n/a	n/a	**3, 5**	.	.	.	.	.	.	.	.
Moths	*Agrotera nemoralis*	Beautiful Pearl				**4**	.	.	.	.	.	.	.	.
Moths	*Aplota palpellus*	Gold-flecked Hopper; Scarce Brown Streak	pRDB	n/a	n/a	**4**	.	.	.	.	.	.	.	.

Micro-habitat assemblage: Lichens of old growth woodland and wood-pasture

Group	Species	Common Name	IUCN GB	IUCN Eng	IUCN other	Criteria	Threats / Pressures							
Lichens	*Agonimia octospora*		NT	n/a	n/a	**2**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Arthonia invadens*		NT	n/a	n/a	**2**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Bacidia subturgidula*		CR	n/a	n/a	**1**	PB07	PB08	PI03	.	.	.	.	.
Lichens	*Caloplaca lucifuga*		VU	n/a	n/a	**1, 4**	PA05	PB08	PK04	PM07	.	.	.	.
Lichens	*Collema nigrescens*		NT	n/a	n/a	**2, 4**	PB08	PI03	PI04	PM07	.	.	.	.
Lichens	*Cryptolechia carneolutea*		EN	n/a	n/a	**1**	PB07	PB08	PB14	PH05	PI03	PI04	PM06	.
Lichens	*Lecania chlorotiza*		NT	n/a	n/a	**2**	PB07	PB08	PB14	PH05	PI03	PI04	PM06	.
Lichens	*Lecanora quercicola*		VU	n/a	n/a	**1, 4**	PI03	PK04	PM07	.	.	.	.	.
Lichens	*Lecanora sublivescens*		NT	n/a	n/a	**2**	PI03	PK04	PM07	.	.	.	.	.
Lichens	*Micarea pycnidiophora*		NT	n/a	n/a	**2**	PB06	PB08	.	.	.	.	.	.
Lichens	*Opegrapha fumosa*		n/a	n/a	n/a	**4**	PB08	PK04	.	.	.	.	.	.
Lichens	*Parmeliella triptophylla*		n/a	n/a	n/a	**4**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Riscolia amplissima*		n/a	n/a	n/a	**4**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Riscolia virens*		n/a	n/a	n/a	**3**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Sticta sylvatica*		n/a	n/a	n/a	**4**	PJ07	PK04	.	.	.	.	.	.
Lichens	*Syncesia myrticola*		NT	n/a	n/a	**2, 4**	PA05	PA08	PF05	PI02	PI03	PK04	.	.
Lichens	*Synarthonia astroidestera*		NT	n/a	n/a	**2, 4**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Tylophoron hibernicum*		NT	n/a	n/a	**2, 4**	PB08	PI03	PK04	.	.	.	.	.
Lichens	*Usnea articulata*		NT	n/a	n/a	**2**	PB08	PK03	.	.	.	.	.	.
Lichens	*Usnea florida*		n/a	n/a	n/a		PB08	PK04	.	.	.	.	.	.
Lichens	*Varicellaria velata*		VU	n/a	n/a	**1, 4**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.

Lichens	*Wadeana dendrographa*		NT	n/a	n/a	**2**	PB07	PB08	PB14	PH05	PI03	PI04	PM07	.
Lichens	*Zwachkia prosodea*		NT	n/a	n/a	**2**	PB08	PI03	PM06	.	.	.	.	.

Micro-habitat assemblage: Bracket, crust and other saprotrophic fungi of old growth woodland and wood-pasture

Group	Species	Common Name	IUCN GB	IUCN Eng	IUCN other	Criteria	Threats / Pressures							
Fungi	*Buglossoporus quercinus*	Oak Polypore	VU	n/a	VU(Eur)	**1, 4**	PB07	PB08	PM07	.	.	.	.	.
Fungi	*Pluteus aurantiorugosus*		n/a	n/a	n/a	**4**	PB07	PB08	PB14	PH05	.	.	.	.
Fungi	*Podoscyphus multizonata*	Zoned Rosette	n/a	n/a	pVU(Eur)	**1**	PB08	PK04	PM07	.	.	.	.	.