DORSET LOCAL NATURE RECOVERY STRATEGY HABITAT ASSEMBLAGES

Habitat assemblage:	Species associated with bare ground and pioneer stages of dry and humid heath
Broad Habitat type:	Heathland
S41 and Priority Habitat type:	Lowland Heathland
Composite species assemblages:	Invertebrates of bare ground and the open pioneer stages of sandy and clayey heaths Plants of heathland trackways

Habitat assemblage description:	Within the heathland landscape bare ground is one of the most important features supporting many scarce and threatened species who require the warm micro-climate and excavate their nests in the sand. Ants, bees, wasps and spiders are particularly well represented with Dorset supporting nationally important populations. Historically bare ground was found along tracks, in small-scale sand, gravel and clay pits, in areas cut for turf and areas disturbed by the actions of livestock. Winter burning also set back succession and produced the pioneer phase of heath which is preferred by many species. Today most bare ground is just along trackways and, at some sites, scrapes that have been artificially provided for reptiles but have also benefited many invertebrates. Different groups and species will require specific types of bare ground, some preferring compacted sand or gravel, other more extensive patches of loose sand. Flat ground, slopes and vertical faces are all utilised by a wide variety of species. Stones in pioneer heath are important for ants and spiders. A few specialists prefer clayey ground most notably the heath potter wasp and rare Purbeck mason wasp, the latter confined in Britain to the Dorset Heaths.

Other related assemblages:	Species of dry and humid heath Species of acid grassland

Pressures and Threats	
PA04	**Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.)**
	Heathland is a landscape that for many centuries was managed by a pastoral system of grazing and human use of the local resources, such as small-scale sand, gravel and clay pits, trackways, animal drinking ponds, scrub and fallow land. The cessation of that traditional management has led to a loss of these small-scale features which added considerable diversity to heathland and supported many scarce and threatened species. Turf-cutting was widespread and small-sand and gravel pits were frequent (as seen on old maps). These

	features provided many different types of bare ground that are required by the numerous specialist invertebrates and plants found on heathland.
PA05	**Abandonment of management/use of grasslands and other agricultural and agro-forestry systems (e.g. cessation of grazing, mowing or traditional farming)**
	The loss or traditional heathland management, particularly grazing and winter-burning has resulted in a more homogenous vegetation particularly in the later building phase and mature phase with a loss of structure and decline in bare ground both of which are important for invertebrates and heathland specialist reptiles. The cessation of turf-cutting (turbary) has contributed to significantly less bare ground within the heath, much of the bare ground is now restricted to tracks where it is too disturbed or too compacted for some species.
PA07	**Intensive grazing or overgrazing by livestock**
	Prolonged or over grazing can result in a loss of flowers as a nectar and pollen resource for many invertebrates. Ground nesting bees which nest in bare ground can travel quite widely within the heathland landscape to forage and require flower-rich acid grassland and road or track verges which are often favoured by grazing animals, especially in spring before the purple moor-grass becomes available to graze. Intensive grazing, or trampling by larger grazing animals, can impact negatively on tracks and sand-patches used for egg-laying by sand lizard.
PA08	**Extensive grazing or under-grazing by livestock**
	The loss of traditional grazing on heaths led to increase in coarse vegetation and scrub to the detriment of those small heathland specialist plants are poor competitors and require a level of grazing or other disturbance. The reintroduction of grazing to many sites has gone to address this issue, although there are still sites that would benefit from the introduction of grazing.
PF05	**Sports, tourism and leisure activities**
	Heaths are often open access land and are commonly used for recreation, especially within and around the conurbation. Locally prolonged disturbance by footfall or off-road biking can lead to erosion particularly sandy sites. In certain situations, erosion can be problematic as sediment can be washed into mire systems, but in others sites it can provide bare loose sand and small vertical cliffs that are required by a number of specialist invertebrates.
PI02	**Other invasive alien species**
	Non-native species that impact negatively on bare ground are less easy to define than those generally found on heathland as a whole. The moss *Campylopus introflexus* is the most widespread and a colonist of bare sandy ground and forms dense closed mats over bare ground reducing space for native species.
PI03	**Problematic native species**
	With the cessation of traditional management species such as birch, bracken and gorse have all increased significantly usually at the expense of heather-dominated vegetation acid grassland and bare ground features.

PK04	**Atmospheric N-deposition**
	Heathland soils are intrinsically very nutrient-poor and the plants grow on them are adapted to the conditions, many are poor competitors. In northwest Europe and parts of eastern England wavy hair-grass has increased significantly and even replaced heather on some heaths, resulting in more homogenous and species-poor vegetation. This has not (yet) happened in the New Forest and Dorset with perhaps higher rainfall the ameliorating factor. However, other species such as purple moor-grass, bog myrtle and western gorse are possibly reacting to low-level deposition. The effects of deposition may be compounded by a reduction in grazing and climate change.

Micro habitat assemblages: Invertebrates of bare ground and the open pioneer stages of sandy and clayey heaths

Group	Species	Common Name	IUCN GB	IUCN Eng	IUCN other	Criteria	Threats / Pressures							
Beetles	*Anisodactylus nemorivagus*	Heath Short-spur	NT	n/a	n/a	**2**	.	.	.	.	.	.	.	.
Beetles	*Bembidion nigricorne*	a ground beetle	NT	n/a	n/a	**2**								
Beetles	*Cicindela sylvatica*	Wood Tiger Beetle	EN	n/a	n/a	**1**	PA05	PA08	PF05	.	.	.	.	.
Beetles	*Haeterius ferrugineus*	a clown beetle	VU	n/a	n/a	**1**	.	.	.	.	.	.	.	.
Beetles	*Poecilus kugelanni*	Kugelann's Green Clock	NT	n/a	n/a	**2**	.	.	.	.	.	.	.	.
Beetles	*Trypocopris pyrenaeus*	Heath Dumbledor	LC	n/a	n/a	**3, 5**	.	.	.	.	.	.	.	.
Bugs	*Rhopalus rufus*	a Rhopalid bug	n/a	n/a	n/a	**3**	.	.	.	.	.	.	.	.
Flies	*Bombylius minor*	Heath Bee-fly	VU	n/a	n/a	**1**	PA05	PA07	PA08	.	.	.	.	.
Flies	*Lasiopogon cinctus*	Spring Heath Robberfly	LC	n/a	n/a	**4**	.	.	.	.	.	.	.	.
Flies	*Thyridanthrax fenestratus*	Mottled Bee-fly	LC	n/a	n/a	**3**	.	.	.	.	.	.	.	.
Ants	*Tetramorium atratulum*	Dark Guest Ant	VU	n/a	n/a	**1**	PA05	PA08	.	.	.	.	.	.
Ants	*Strongylognathus testaceus*	Testaceus Guest Ant		n/a	n/a	**3**	.	.	.	.	.	.	.	.
Ants	*Temnothorax interruptus*		RDB3	n/a	n/a	**3**	PA05	PA08	.	.	.	.	.	.
Ants	*Tapinoma erraticum*	Erratic Ant		n/a	n/a	**3**	PA05	PA08	.	.	.	.	.	.
Ants	*Tapinoma subboreale*			n/a	n/a	**3**	PA05	PA08	.	.	.	.	.	.
Wasps	*Ammophila pubescens*	Heath Sand Wasp	(NT)	n/a	n/a	**3**	PA04	PA05	PF05	PH04	.	.	.	.
Wasps	*Aporus unicolor*			n/a	n/a	**3**	PA05	PA07	PF05	PH04	.	.	.	.
Wasps	*Cryptocheilus notatus*		VU	n/a	n/a	**1**	PA05	.	.	.	.	.	.	.
Wasps	*Eumenes coarctatus*	Heath Potter Wasp	(NT)	n/a	n/a	**2**	PA05	PF05	PH04	.	.	.	.	.
Wasps	*Methocha articulata*		(NT)	n/a	n/a	**2**	PA05	PH04						
Wasps	*Mimesa bruxellensis*		(NT)	n/a	n/a	**2**	PA05							
Wasps	*Miscophus concolor*		(NT)	n/a	n/a	**2**	PA05	PF05	PH04	.	.	.	.	.
Wasps	*Mutilla europaea*	Large Velvet Ant		n/a	n/a	**3**	PA05	PA07	.	.	.	.	.	.
Wasps	*Oxybelus mandibularis*	Pale Jawed Spiny Digger Wasp	(NT)	n/a	n/a	**3**	PA04	PA05	PA07	PF05	PH04	.	.	.
Wasps	*Pseudepipona herrichii*	Purbeck Mason Wasp	EN	n/a	n/a	**1**	PA04	PA05	PA07	PF05	PH04	.	.	.
Wasps	*Smicromyrne rufipes*	Small Velvet Ant	(NT)	n/a	n/a	**2**	PA05							
Wasps	*Tachysphex nitidus*		(NT)	n/a	n/a	**3**	PA04	PA05	PF05	.	.	.	.	.
Wasps	*Tachysphex unicolor*			n/a	n/a	**3, 4**	PA08	PF05	.	.	.	.	.	.
Bees	*Andrena argentata*	Small Sandpit Mining Bee	.	n/a	DD(ERLB)	**3**	PA05	PF05	PH04	.	.	.	.	.
Bees	*Andrena lapponica*	Bilberry Mining Bee	.	n/a	LC	**4**	PA05	PB17	.	.	.	.	.	.
Bees	*Andrena ovatula*	Small Gorse Mining Bee	.	n/a	NT(ERLB)	**2**	PA05	.	.	.	.	.	.	.
Bees	*Colletes succinctus*	Heather Colletes	.	n/a	NT(ERLB)	**2**	PA04	PA07	PA08	PH04	.	.	.	.
Bees	*Epeolus cruciger*	Red-thighed Epeolus	.	n/a	NT(ERLB)	**2**	PA04	PA07	PA08	PH04	.	.	.	.
Bees	*Lasioglossum brevicorne*	Short-horned Furrow Bee	.	n/a	LC	**3**	PA04	PA05	PF05	PH04	.	.	.	.
Bees	*Lasioglossum prasinum*	Grey-tailed Furrow Bee	.	n/a	NT(ERLB)	**2**	PA04	PA05	PF05	PH04	.	.	.	.
Bees	*Nomada baccata*	Bear-clawed Nomad Bee	.	n/a	NT(ERLB)	**2**	PA04	PA05	.	.	.	.	.	.

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Bees	*Panurgus banksianus*	Large Shaggy Bee	(NT)	n/a	LC	**2**	PA04	PA05	PA08	.	.	.	.	.
Butterflies	*Hipparchia semele*	Grayling	EN	n/a	n/a	**1**	PA08	.	.	.	.	.	.	.
Moths	*Scythris empetrella*	Ling Owlet		n/a	n/a	**3**	.	.	.	.	.	.	.	.
Spiders	*Acartauchenius scurrilis*	a money spider	NT	n/a	n/a	**2**	.	.	.	.	.	.	.	.
Spiders	*Alopecosa fabrilis*	Great Fox-spider	CR	n/a	n/a	**1**	PA05	PA08	PH04	PF05	.	.	.	.
Spiders	*Atypus affinis*	Purseweb Spider		n/a	n/a	**3**	PA05	PA07	PA08	PH04	PF05	.	.	.
Spiders	*Eresus sandaliatus*	Ladybird Spider	VU	n/a	n/a	**1**	PA05	PA07	PA08	PF05	PH04	.	.	.
Spiders	*Euophrys petrensis*	a jumping spider	NT	n/a	n/a	**2**	PA05	PA08	PF05	PH04	.	.	.	.
Spiders	*Micaria sliesiaca*	a ground-spider	NT	n/a	n/a	**2**	.	.	.	.	.	.	.	.
Spiders	*Ozyptila scabricula*	a crab spider		n/a	n/a	**3**	PA05	PA08	PF05	PH04	.	.	.	.
Spiders	*Scotina palliardii*	a running foliage spider	EN	n/a	n/a	**1**	.	.	.	.	.	.	.	.
Spiders	*Xysticus sabulosus*	a crab spider		n/a	n/a	**4**	PA05	PA08	PF05	PH04	.	.	.	.
Spiders	*Zelotes longipes*	a ground spider	VU	n/a	n/a	**1**	PA05	PA08	PF05	PH04	.	.	.	.

Micro habitat assemblages: Plants of heathland trackways

Group	Species	Common Name	IUCN GB	IUCN Eng	IUCN other	Criteria	Threats / Pressures							
Plants	*Cicendia filiformis*	Yellow Centaury	VU	VU	n/a	**1**	PA04	PA05	PA08	PK04	.	.	.	.
Plants	*Linum radiola*	Allseed	NT	VU	n/a	**1**	PA04	PA05	PA08	.	.	.	.	.
Plants	*Lysimachia minima*	Chaffweed	NT	EN	n/a	**1**	PA04	PA05	PA08		.	.	.	.
Plants	*Sagina subulata*	Heath Pearlwort	LC	NT	n/a	**2**	PA04	PA05	PA08	.	.	.	.	.