

Taxa type	Species – Common name	Species – Latin name	Habitat of the species
Restricted species			
Fern	Pillwort	Pilularia globulifera	Edges of non-calcareous lakes, reservoirs, ponds or slow-flowing rivers, and sometimes on damp mine workings or as a submerged aquatic.
Mosses	Matted bryum	Bryum calophyllum	Associated in UK with seasonal dune slacks with wetland spp associates, one recent inland gravel pit record.
Mosses	Knowlton's thread-moss	Bryum knowltonii	Seasonal dune slacks.
Mosses	Sea bryum	Bryum warneum	Sefton coast dune slacks are seasonal pools (wet in winter and spring) - see Plantlife reports on the species.
Mosses	Clustered earth-moss	Ephemerum cohaerens	Non-calcareous, bare muds on the edges of lowland ponds, lakes and reservoirs. Currently only known from a few reservoirs in Britain, but old records are from ponds.
Mosses	Millimetre moss	Micromitrium tenerum	Currently known from only one reservoir site in Devon. Old records from non-calcareous, partly bare mud on the edge of ponds and lakes.
Mosses	Norfolk bladder-moss	Physcomitrium eurystomum	Seasonal meres and ponds.
Mosses	Baltic bog-moss	Sphagnum balticum	Bog pools.
Mosses	Beaked beardless-moss	Weissia rostellata	A turf forming moss which grows on the edge of ponds and reservoirs with fluctuating water levels.
Bryophyte- liverwort	Toothed threadwort	Cephaloziella dentata	Temporary water bodies winter flooded depressions and ruts. Occurs in a very restricted area- SW Lizard.
Bryophyte- liverwort	Petalwort	Petalophyllum ralfsii	Borderline as a pond spp – v outer edge of duneslacks etc.
Bryophyte- liverwort	Lizard crystalwort	Riccia bifurca	Seasonal pools; open - no vascular plants; no nutrients – HWQ. Very restricted area - SW Lizard.
Bryophyte- liverwort	Channelled crystalwort	Riccia canaliculata	Exposed mud; damp sand at pond edge; calcifuge; seasonal fluctuations; scattered within a very restricted geographical area.
Bryophyte- liverwort	Violet crystalwort	Riccia huebeneriana	Nutrient-poor mud at the edge of large ponds, lakes, reservoirs and rivers. It appears to favour locations that are exposed following dry summers, but are under water during the winter.
Stoneworts	Baltic stonewort	Chara baltica	A perennial of mildly brackish ditches, dune slack pools and lakes/broads on sandy substrates close to the sea.
Stoneworts	Bearded stonewort	Chara canescens	Occurs in ponds in Cambridgeshire e.g. at Orton brick pits (now known as Hampton Reserve) and in ponds in surrounding area. In this area it needs a succession of new ponds.
Stoneworts	Convergent stonewort	Chara connivens	Occurs mainly in larger coastal freshwater sites. Also present in smaller pools at RSPB Hodbarrow (Cumbria).
Stoneworts	Foxtail stonewort	Lamprothamnium papulosum	Grows on sandy or silty substrates in depths of up to 2 m in coastal lagoons or lagoon-like habitats on the south coast of England and Outer Hebrides.
Stoneworts	Dwarf stonewort	Nitella tenuissima	Found in calcareous fenland, where it occurs in shallow peaty pools and ditches in depths of up to 1 m. Main stronghold is on Anglesea, also at Wicken Fen. Recently, the main management for this species has been scraping shallow pools in peat



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Stoneworts	Tassel stonewort	Tolypella intricata	A species of seasonal pools, canals, ditches, poached edges of ponds and wheel-ruts that are dry during the summer months. Now mainly found in temporary or fluctuating ponds. Strongholds are in Gloucestershire and Oxfordshire, but found elsewhere in the lowlands.
Stoneworts	Great tassel stonewort	Tolypella prolifera	Slow-moving alkaline water in ditches with clean water and more rarely rivers and canals.
Vascular plant	Ribbon-leaved water-plantain	Alisma gramineum	Occurs in lakes, ponds and ditches, particularly where bare sediments are periodically available.
Vascular plant	Creeping marshwort	Apium repens	Occurs on grazed seasonal pools on large river floodplains.
Vascular plant	Flat sedge	Blysmus compressus	Found on pond edges (and in flushes, lake edges etc).
Vascular plant	Curved sedge	Carex maritima	Damp dune slacks; freshwater seepages; near streams on the shore. Species with restricted distribution.
Vascular plant	True fox-sedge	Carex vulpina	Occurs by ditches and rivers, in meadows and in a Quercus-Crataegus thicket. It sometime grows in standing waters (Flora).
Vascular plant	Yellow centaury	Cicendia filiformis	Seasonal pools, track-ruts, woodland rides, dune slacks etc.
Vascular plant	Brown galingale	Cyperus fuscus	An annual of moist, open, disturbed ground around the margins of ponds and by ditches, often on ground subject to winter-flooding.
Vascular plant	Starfruit	Damasonium alisma	This annual grows on acid mud by small ponds where the habitat is kept open by fluctuating water levels and disturbance by grazing animals (Flora).
Vascular plant	Coral-necklace	Illecebrum verticillatum	Periodically wet or inundated acidic to neutral soils on gravelly tracks, pool and ditch margins, in very short heathy swards and grassland; also on clinker in railway sidings.
Vascular plant	Pygmy rush	Juncus pygmaeus	Occurs in seasonally wet, compacted open ground such as in gateways and on wheel tracks, less often in natural areas of erosion and in quarries, on serpentine heathland. Occurs in Mediterranean temporary ponds on The Lizard (Cornwall).
Vascular plant	Cut-grass	Leersia oryzoides	A rhizomeatous perennial of nutrient-rich mud around the cattle trampled margins of lakes and ponds, in ditches, on canal banks and riversides; formerly in wet meadows (Atlas).
Vascular plant	Fen orchid	Liparis loeselii	In East Anglia, species-rich fens on infertile soils and old peat cuttings. Elsewhere, young dune slacks.
Vascular plant	Heath lobelia	Lobelia urens	Grassy heaths, wettish, seasonally waterlogged, horse grazing and disturbance.
Vascular plant	Floating water plantain	Luronium natans	Mesotrophic or oligotrophic lakes, pools and slow flowing rivers, and abandoned or little-used canals.
Vascular plant	Marsh clubmoss	Lycopodiella inundata	Bare peat, trampled, poached ground, on damp but not wet ground (ecotone between dry and wet).
Vascular plant	Grass-poly	Lythrum hyssopifolia	An annual of disturbed ground which is flooded in winter, including hollows and ruts in arable fields, and damp pastures disturbed in winter by numerous waterfowl (Flora). A temporary pond specialist.
Vascular plant	Pennyroyal	Mentha pulegium	Temporary wet grassland, on commons, on dry grassland on cliff tops and within heathland (Devon, Lizard) trackways. Likes bare substrate. Scattered within very restricted geographical area.



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Vascular plant	Tubular water-dropwort	Oenanthe fistulosa	A perennial herb of damp or wet habitats, usually in areas of winter flooding. It occurs in meadows and pastures in the floodplains of rivers, in marshes and fens, and in emergent and fringing vegetation by rivers, streams, canals, ditches, lakes and ponds.	
Vascular plant	Sharp-leaved pondweed	Potamogeton acutifolius	Shallow; species-rich drainage ditches; calcareous mesotrophic water. Localised distribution. Found in SE & E of E.	
Vascular plant	Grass-wrack pondweed	Potamogeton compressus	A species that would naturally exploit ponds on dynamic floodplains with good water quality if we had any left: e.g. slow flowing channels, oxbow ponds/lakes and temporary ponds.	
Vascular plant	Small fleabane	Pulicaria vulgaris	Winter-flooded hollows in grassy places. Grazed.	
Vascular plant	Three-lobed water-crowfoot	Ranunculus tripartitus	Temporary pools and pond edges, tracks puddled, gateways, pinch points, with disturbance. Also ponds in woodland.	
Vascular plant	Round-headed club-rush	Scirpoides holoschoenus	Damp dune hollow; seasonal variation; open areas (no scrub).	
Vascular plant	Annual knawel	Scleranthus annuus	Pond edges and river shingle bare ground, very dry drought stressed; well drained, nutrient-poor soil.	
Vascular plant	Greater water parsnip	Sium latifolium	This perennial herb was once typical of very wet, species-rich, tall-herb fen, which often developed as floating mats at the margins of lakes and large rivers; now it is generally found in ditches, growing amongst other emergent species or in reedswamp.	
Vascular plant	Marsh stitchwort	Stellaria palustris	Pools with seasonal variation; in grassland with oper sward; damp/wet soil; herb rich; unimproved.	
Vascular plant	Water germander	Teucrium scordium	Bare ground, seasonally inundated. Dune slacks, fer pools.	
Vascular plant	Fen violet	Viola persicifolia	Grows in relatively open vegetation, often with patches of bare soil; favours areas that are seasonally wet; in Ireland grows on margins of seasonally fluctuating lakes.	
Invertebrate - Bryozoan	Sackformed moss animal	Lophopus crystallinus	Lakes, ponds, ditches and slow rivers. Currently known from 3 sites (artesian spring fed pools, a lake and a river), though may be considerably more widespread.	
Invertebrate - Sea Anemone	Starlet sea anemone	Nematostella vectensis	Saline coastal lagoons and ponds.	
Invertebrate - beetle	A ground beetle	Agonum scitulum	Edges of wetlands and ponds where drawdown zones create beaches with litter. Restricted geographical area and no recent records.	
Invertebrate - beetle	Flowering-rush weevil	Bagous nodulosus	On flowering-rush; currently known only in the Somerset Levels.	
Invertebrate - beetle	Scarce four-dot pin-palp	Bembidion quadripustulatum	Edges of wetlands, rivers and ponds where drawdown zones create beaches with litter. Very localised locations. Mainly in SE & E of E. 10 10km ² spreading into Nene and Ouse.	
Invertebrate - beetle	Diminutive diver	Bidessus minutissimus	A species predominantly associated with rivers in the UK. It has recently been recorded from a disused limestone quarry site on the English/Welsh Borders.	
Invertebrate - beetle	One-grooved diving beetle	Bidessus unistritatus	Confined to lowland, stagnant water bodies and slow drains.	
Invertebrate - beetle	Silt silver-spot	Bracteon argenteolum	Fluctuating water levels on the edge of large ponds. Restricted to Suffolk.	
Invertebrate - beetle	Zircon reed beetle	Donacia aquatica	Amongst sedges on the edge of ponds, ditches, lakes and fens.	
Invertebrate - beetle	Two-toned reed beetle	Donacia bicolora	Found within stands of <i>Sparganium erectum</i> on the edge of large stream fed ponds and rivers. High water quality essential.	



Project Pend Conservation			
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Invertebrate - beetle	Spangled water beetle	Graphoderus zonatus	Occurs only in ponds in Woolmer Forest (Hampshire). These include a deep, permanently flooded pond, with its bottom covered by Sphagnum, created by peat cutting in 1895; pools resulting from military activities; and pools dug as breeding sites for Natterjack toads.
Invertebrate - beetle	New Forest mud beetle	Helophorus laticollis	Found in shallow grassy pools on heathland.
Invertebrate - beetle	Ron's diving beetle	Hydroporus necopinatus	Shallow pools on peat on exposed heathland in southern England. It is found in ruts created by vehicles and in small pools associated with artillery practice.
Invertebrate - beetle	Oxbow diving beetle	Hydroporus rufifrons	Extremely shallow and temporary pools in unimproved pasture, often in old oxbow systems.
Invertebrate - beetle	Puzzled skipper aka Sussex diving beetle	Laccophilus poecilus	Occupies lowland rich fen, near the coast but not in brackish water.
Invertebrate- beetle	Crucifix ground beetle	Panagaeus crux-major	Vegetated margins of ponds with fluctuating water levels. Only 4 recent records - NE Lincolnshire, Sussex, Yorkshire and Carmarthenshire.
Invertebrate- beetle	A camphor beetle	Stenus longitarsis	Wetland edges. Restricted geographical area. At least 2 sites in the New Forest.
Invertebrate- bug	Lesser water measurer	Hydrometra gracilenta	Found on the edge of well vegetated ponds. Restricted - Ant Valley, Norfolk and Pevensey Levels, Sussex.
Invertebrate - bug	Pondweed leafhopper	Macrosteles cyane	Known from three ponds in Surrey and Sussex.
Invertebrate - crustacean	White-clawed crayfish	Austropotamobius pallipes	Found in a wide variety of environments, including canals, streams, rivers, lakes, ponds, reservoirs and water-filled quarries.
Invertebrate - crustacean	Lagoon sand shrimp	Gammarus insensibils	Saline coastal lagoons and ponds.
Invertebrate - crustacean	Tadpole shrimp	Triops cancriformis	Temporary ponds.
Invertebrate - dragonfly	Norfolk hawker	Aeshna isosceles	Fen and grazing marsh dyke systems in Broadlands where it exploits unpolluted ditches and dykes, and occasionally small turf ponds.
Invertebrate - mayfly	Yellow mayfly	Potamanthus luteus	This species is restricted to a single river system: the Welsh River Wye, whose population has suffered a catastrophic collapse in the last decade. Larvae are found in large rivers in both riffle sites and small pools almost cut off from the main river.
Invertebrate - snail	Little whirlpool ramshorn snail	Anisus vorticulus	Now restricted to ditches in southern coastal grazing marshes; until the mid-1980s known from one species rich floodplain pond in Surrey.
Invertebrate - snail	Glutinous snail	Myxas glutinosa	Only known current site: Llyn Tegid (Gwynedd); formerly occurred in Kennington Pit, Oxford.
Invertebrate - snail	Mud snail	Omphiscola glabra	Lives in low nutrient ponds and ditches or around seepages.
Invertebrate - snail	Shining ram's-horn snail	Segmentina nitida	Occurs today in drainage ditches in marsh levels, in clean hard water. Formerly it was also from lakes and ponds, often situated on former floodplains or in areas of reclaimed marshland.
Invertebrate - snail	Sandbowl snail	Quickella arenaria	Open habitat (unshaded with low vegetation) which remains wet or damp (at or near the water table). Very restricted geographical area in SW Braunton Burrows and Pennines.
Invertebrate - snail	Desmoulin's whorl snail	Vertigo moulinsiana	Emergent vegetation at the sides of ponds lakes and ditches in calcareous fens and marshes.
Invertebrate - spider	Fen raft Spider	Dolomedes plantarius	At the margin of peat pools on Redgrave and Lopham Fen, on grazing marsh ditches in the Pevensey Levels and on a disused canal in south Wales.



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Invertebrate - caddisfly	Window winged sedge	Hagenella clathrata	The principal larval habitat of this species is in very small pools shaded by tussocks (primarily of <i>Molinia</i>). It needs to be not too wet and not to dry i.e. it is associated with the margins of mire systems. It is threatened by habitat loss due to site drying as trees invade.
Invertebrate – worm	Jenning's ribbon worm	Prostoma jenningsi	A pond in Croston, Lancashire, the only known site in the world.
Amphibian	Natterjack toad	Epidalea calamita	Found almost entirely on three habitat types: sand dunes, saltmarsh and lowland heath. The key habitat requirements are shallow (often ephemeral), warm ponds for breeding and open, sandy terrestrial habitats for foraging, dispersal and hibernation.
Amphibian	Pool frog	Pelophylax lessonae	Reintroduced at a set of pingo ponds in Norfolk.
Bat	Barbastelle bat	Barbastella barbastellus	Buildings, trees and underground sites, old woodland with plenty of dead trees; loose bark; crevices; glades and rides; hunts over water; well structured woodland with complex understorey. Restricted to SE & SW.
Bat	Bechstein`s bat	Myotis bechsteinii	Hunts within closed canopy woodland and above woodland streams; roosts in holes and cracks in old trees (e.g. old woodpecker holes). Restricted distribution.
Bat	Greater horseshoe bat	Rhinolophus ferrumequinum	Forages above wetlands and waterbodies.
Bat	Lesser horseshoe bat	Rhinolophus hipposideros	Roosts in a variety of buildings and underground sites including caves; buildings (often undisturbed and disused); mines; forages in woodland edge, scrub, along hedgerows and tree lines, riparian habitat. Restricted distribution.
Widespread species			
Amphibian	Common toad	Bufo bufo	Prefers larger water bodies in which to breed and, because toxins are also present in the skin of the tadpoles, able to breed in ponds and lakes containing fish which learn to avoid the distasteful tadpoles. Widespread species.
Amphibian	Great crested newt	Triturus cristatus	Breeding sites are mainly medium-sized ponds, though ditches and other waterbody types may also be used less frequently. Ponds with ample aquatic vegetation (which is used for egg-laying) seem to be favoured. Great crested newts do not require very high water quality, but are normally found in ponds with a circum-neutral pH.
Reptile	Grass snake	Natrix natrix	Grass snakes visit a wide range of pond types to feed on amphibians and fish.
Bird	Hawfinch	Coccothraustes coccothraustes	Access to pools and or streams in woodland is critical as they need to drink regularly due to the low moisture content of their diet
Bird	Bewick's swan (Tundra swan)	Cygnus columbianus bewickii	Extensive open wetlands and pools (10ha) with emergent vegetation; proximity to arable and pasture with short, grassy swards in an extensive open landscape, can utilise waste root crops (e.g. potatoes and sugar beet). Localised- SE, E & NW, scattered elsewhere. Restricted to a relatively small number of key sites.
Bird	Reed bunting	Emberiza schoeniclus	Breeds in reedbeds, tall rushes and shrubbery on wet ground or at lake margins. Pond creation, ditch restoration and various waterside land management options should also be beneficial as long as emergent vegetation is provided along the edges of water bodies. Recently moved from Red List to Amber List.



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Bird	Yellow wagtail	Motacilla flava	Breed on marshy pastures, waterlogged meadows, besides lakes and at sewage farms. Studies show breeding territories were associated with fields previously subject to prolonged winter floods and which contained shallow-edged ponds or wet ditches during summer.
Bird	Tree sparrow	Passer montanus	Tree Sparrows show a marked preference for breeding sites adjacent to aquatic habitats. Wetland habitats may play a key role in providing invertebrate food resources during the breeding season.
Bird	Northern lapwing	Vanellus vanellus	Breeds on arable fields, pastureland or sea-side or lakes-side meadows.
Bird	Redshank	Tringa totanus	Provision of ponds will provide invertebrate rich areas for feeding, if part of a wider mosaic of suitable wet grassland habitat.
Bird	Song thrush	Turdus philomelos	Breeding song thrushes require dense woody vegetation for nesting cover situated close to damp soils providing soil invertebrates.
Bat	Noctule bat	Nyctalus noctula	Mature/old trees –predominately roosts in tree cavities (also known to roost in buildings); forages above canopy and over water and pasture.
Bat	Soprano pipistrelle	Pipistrellus pygmaeus	The soprano pipistrelle prefers riparian habitats whereas the common pipistrelle uses a wide range of habitats. Aquatic insects are an important part of the soprano pipistrelle's diet and so they often forage near fresh water habitats.
Bat	Brown long-eared bat	Plecotus auritus	Woodland specialists, roosting in tree holes in summer and hibernating in tunnels and caves in the winter. They will also utilise a range of man-made structures. Ponds provide drinking water and a source of invertebrates.
Mammal	Water vole	Arvicola terrestris	Mainly on well vegetated banks of lowland rivers, ponds, canals and drainage ditches.
Mammal	Otter	Lutra lutra	Wetland habitats that support fish and amphibians.
Fish	European eel	Anguilla Anguilla	Can be found in all types of waterbodies, including both upland and lowland, flowing water and still, and productive and unproductive waters, although they probably prefer rich, muddy, slow-flowing environments.