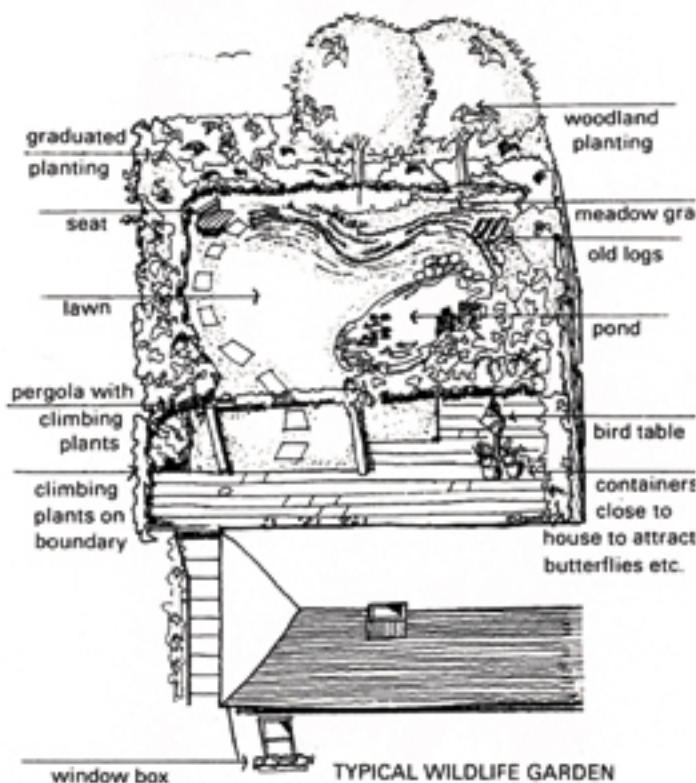
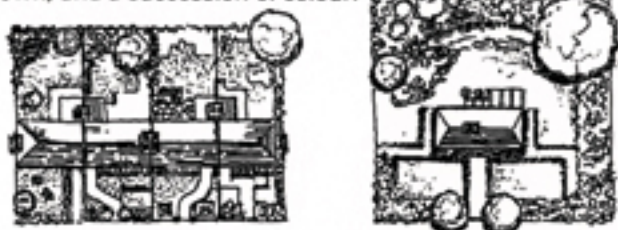


DESIGN GUIDELINES WILDLIFE IN GARDENS



This leaflet is one of a series on environmental issues, produced as supplementary guidance to the Unitary Development Plan. It outlines the main ways of encouraging wildlife and nature conservation in gardens. It is not intended as a detailed guide and some references for further reading are given at the end.

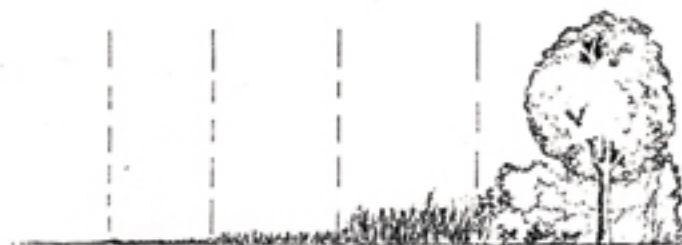
All gardens can provide food and shelter to passing wildlife, particularly when native plants are used, which in general are more attractive to wildlife as a source of food. Wildlife will include, for example, birds, insects including butterflies, frogs and hedgehogs. Features such as ponds and water, and shelters for birds will also have a valuable role. The main principles are outlined below. These principles are applicable at all scales from a small patio to a large garden, although the detail of the approach will differ. Gardening for nature conservation can also coexist well with other garden styles; it is not necessary to completely change the character of an existing garden, only to introduce one or two areas within it aimed at attracting wildlife. The contrast in style with more formal areas can be effective, providing a country atmosphere in town, and a succession of colour.



Natural approach can contrast well with other styles of planting e.g. with more formal landscape in front garden

PLANTING

Planting attracts wildlife by providing shelter and food, and native plants generally provide a better source of food than introduced plants, although introduced plants high in nectar or bearing fruit will also be of value. Opportunities should be taken to plant hedges in addition to the provision of hard boundaries (e.g. walls, fencing), to use climbing plants on buildings, walls and fencing, and to use planting generally rather than just paving and grass. These measures can also greatly improve the appearance of gardens, and particularly front gardens.

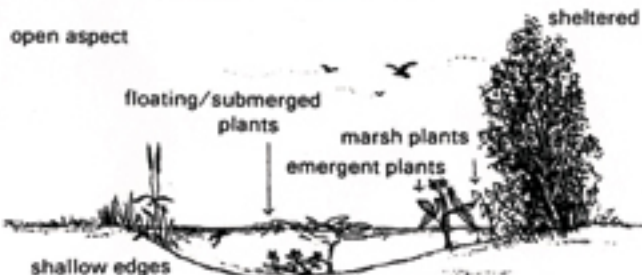


Typical mowing regime for taller grass

Lawns and Wildflowers



Opportunities should be taken to grow mini-meadows, and these can coexist happily by the side of close mown grass. The closer mown grass is good for encouraging daisies and provides an effective contrast to the longer grass beyond. Taller grass provides the right habitat for wild flowers. A typical mowing regime for longer grass might involve: leaving some grass uncut until July, with another area left uncut until September, to encourage late summer wildflowers. The longer grass will provide an excellent habitat for butterflies and grasshoppers. With longer grass, leave some grass cuttings on the grass, to allow wildflower seeds to fall back into the soil. Rake off after a week to avoid soil fertility increasing, which will hinder wild flower growth. With a close-mown lawn, delaying mowing from mid-May will encourage daisies and plantains. Native wildflower seeds are best sown in pots in late summer, then planted in the ground when they are about 50mm tall, or when they can be easily handled. Dig out some bare patches in the lawn beforehand. An alternative approach is to buy ready made wild flower turf.



Pond for wildlife

WATER



Introducing a water area into the garden will greatly increase its potential for attracting and sustaining wildlife. This will include birds, frogs, toads, and insects. It can be quite simple to construct and can also provide a pleasing visual feature. Any area of water, even a small container on a patio, will be of some value. To construct a wildlife pond, a sunny position away from overhanging branches is best, with one side open (grass or paving), and one side sheltered by long grass or shrubs. Edges should be shallow and gently shelving, with a depth where possible of about 1 metre at the centre, which will reduce the likelihood of complete freezing. **Attention should be paid to safety, particularly in relation to children.** Varying depths will allow different types of plants to grow, from open water and floating plants at the centre to marginal and marsh type planting on the perimeter. A flexible water-proof liner is usually used at the base, with about 100mm subsoil or sand and gravel on top of the liner. The use of gravel and pebbles at the edges of ponds contrasts well with planting and water. If possible use rainwater to fill the pond. Some mud could be transferred from an existing pond which may contain larvae/eggs of other native pond creatures. Since there are occasional infestations of vigorous pond weeds, please seek advice first from the Council's Nature Conservation and Ecology Officer or London Wildlife Trust.

An alternative to a pond is a bog garden constructed with a liner, water and peat-free compost or similar materials.

BIRDS, BUTTERFLIES AND MAMMALS



Many of the suggestions above will be of great value to birds, with hedges, trees and climbing plants providing ideal nesting sites; the more common pest-eating birds include: blackbirds, blue tits, great tits, robins, starlings and song thrushes. Nest boxes located out of full sun and out of reach of cats and squirrels may also be used, with different shaped openings attracting different birds. A bird table is useful for feeding, and should be in a sheltered position, but away from shrubs and trees which may harbour cats, and visible from a window or vantage point in the garden. It should include some water for drinking and bathing, or this could be provided by a separate bird-bath.

Flowers rich in nectar, and nettle patches, attract butterflies (see plants list), and these should be in a sunny position. Hedgehog houses and bat boxes can also be cheaply constructed. Further information is given in the references listed at the end.

Nest boxes for birds



robins
blackbirds
flycatchers



blue tits
great tits

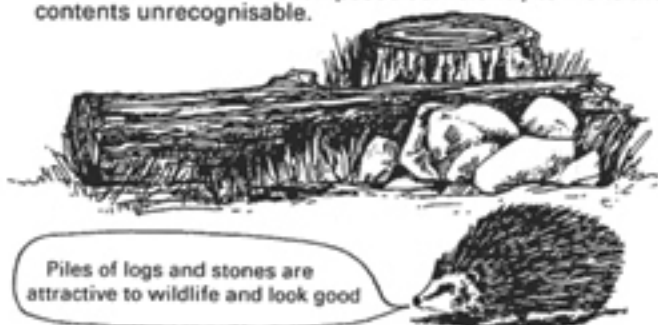
Put bird table in visible sheltered position



OTHER WAYS OF ATTRACTING WILDLIFE

Reduce or eliminate the use of **CHEMICALS**. They may poison wildlife and worsen problems with pests by interfering with the food chain: for example, greenfly predators may be killed, resulting in a more serious problem with greenfly on roses etc. Methods which can be used to restrict weed growth include using a thick layer of bark chippings, gravel or similar material as a mulch; ground cover planting to cover bare earth, and regular hoeing or hand-weeding.

Use a **COMPOST HEAP**. Compost heaps can be used for most soft garden and kitchen vegetable waste, but not for meat, fish or cooked vegetables, as this may encourage rats. Also avoid putting seed heads in the compost heap. Wool and linen will also rot down quickly. It is useful to have two containers, allowing the second one to be built up as the first decomposes. Containers can be bought, or they can be easily constructed from wood or other materials. An ideal size is 1 metre high by 1 metre wide. Ventilation should be made to the sides of a home made container and the top covered to prevent the compost becoming too wet. The compost heap will attract hedgehogs, and insects which will in turn attract other wildlife. The compost will provide a good source of soil enrichment for planting trees, shrubs and perennial plants, and a mulch between plants to suppress weeds and contain moisture. The compost can be used when it has decomposed sufficiently to make the contents unrecognisable.



Piles of logs and stones are attractive to wildlife and look good

Trees, shrubs, hedges, climbers and perennial plants

A selective list of native and other plants is given at the end of this leaflet.

TREES: try to include at least one tree as this will give focus to the garden; native trees provide a major source of food for wildlife. They supply food for large numbers of insects, which in turn provide food for other animals, producing a food chain. Large trees should not be planted close to buildings because of possible damage from roots and overshadowing.

A tree will provide a focus for the garden



HEDGES: these are particularly beneficial to wildlife as they provide nesting areas and shelter. They should be considered for boundary treatment, either as an alternative to or in conjunction with walls, fences or railings. A mixed hedge consisting mainly of hawthorn is particularly suitable.

Consider hedges as boundary treatment



CLIMBING PLANTS: these are useful for the same reason, are a valuable food source for birds and insects, and take up little space on the ground. They are also of great value visually in covering walls, outbuildings, and pergolas, and may effectively screen ugly features.

Speed of growth will vary, and the range of climbing plants includes both deciduous and evergreen. Ivy is a valuable food source for birds and insects; however, care should be taken with ivy on buildings, where it may damage brickwork, and is best avoided on historic buildings. Alternative climbing plants are given in the plants list.

Climbing plants are of great use both visually and for wildlife



SHRUBS & PERENNIAL PLANTS: these can form a transition between grass areas and trees and give structure to the garden. Berrying shrubs will provide a good source of food. Shrubs with thorns are particularly valuable as safe nesting sites.

CONTAINER PLANTING: containers are particularly valuable where there are little or no opportunities for planting in the ground, perhaps where only a balcony or window-sill is available. A wide range of plants are suitable, particularly plants high in nectar to attract butterflies, and less vigorous climbing plants. Containers will require frequent watering.

SELECTIVE PLANTS LIST

Space only permits an indication of the possible range of planting.

NATIVE* TREES	Latin name (if different)	Size
Alder	<i>Alnus glutinosa</i>	M
Birch	<i>Betula pendula</i>	M
Native cherry	<i>Prunus avium</i>	M
Crab apple	<i>Malus sylvestris</i>	S
Field maple	<i>Acer campestre</i>	M
Rowan	<i>Sorbus aucuparia</i>	S/M
Whitebeam	<i>Sorbus aria</i>	S/M
Ash	<i>Fraxinus excelsior</i>	L
Beech	<i>Fagus sylvatica</i>	L
Hornbeam	<i>Carpinus betulus</i>	L
Oak	<i>Quercus robur</i>	L

HEDGES

Beech	<i>Fagus sylvatica</i>
Dogwood	<i>Cornus sanguinea</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Field maple	<i>Acer campestre</i>
Wild privet	<i>Ligustrum vulgare</i>
Dog rose	<i>Rosa canina</i>
Guelder rose	<i>Viburnum opulus</i>
Pussy willow	<i>Salix caprea</i>

CLIMBING PLANTS

Clematis		mainly non-native
Honeysuckle	<i>Lonicera</i>	
Hop	<i>Humulus lupulus</i>	
Climbing hydrangea	<i>Hydrangea petiolaris</i>	non-native
Ivy	<i>Hedera helix</i>	
Jasmine	<i>Jasminum</i>	non-native
Virginia creeper	<i>Parthenocissus</i>	non-native

SHRUBS / PERENNIALS / ANNUALS attractive to butterflies (in addition to native wildflowers listed below; these plants are mainly non-native).

Butterfly bush	<i>Buddleia</i>
Californian lilac	<i>Ceanothus</i>
Lavender	<i>Lavandula</i>

Bergenia	
Ice plant	<i>Sedum</i>
Primrose	<i>Primula</i>
Coneflower	<i>Rudbeckia</i>

Chrysanthemum	
Heliotrope	<i>Heliotropum</i>
Marigold	<i>Calendula</i>
Sunflower	<i>Helianthus</i>
Verbena	

SHRUBS WITH BERRIES

Barberry	<i>Berberis</i>
Cotoneaster	
Elderberry	<i>Sambucus nigra</i>
Honeysuckle	<i>Lonicera</i>
Firethorn	<i>Pyracantha</i>
Viburnum	

NATIVE WILDFLOWERS

Spring meadow:	
Cowslip	<i>Primula veris</i>
Daisy	<i>Bellis perennis</i>
Speedwell	<i>Veronica chamaedrys</i>

Summer meadow:	
Oxeye daisy	<i>Leucanthemum vulgare</i>
Knapweed	<i>Centaurea</i>
Meadow buttercup	<i>Ranunculus acris</i>

Border (some non-native):

Angelica	
Aubretia	
Crane's bill	<i>Geranium</i>
Forget-me-not	<i>Myosotis</i>
Hollyhock	<i>Aithaea</i>
Honesty	<i>Lunaria</i>
Michaelmas daisy	<i>Aster</i>
Snapdragon	<i>Antirrhinum</i>
Sunflower	<i>Helianthus</i>

PLANTS FOR PONDS

Submerged:	
Curly pondweed	<i>Potamogeton crispus</i>
Hornwort	<i>Ceratophyllum demersum</i>
Spiked water milfoil	<i>Myriophyllum spicatum</i>

Floating:	
Amphibious bistort	<i>Polygonum amphibium</i>
Fringed water lily	<i>Nymphaea peltata</i>

Emergent:	
Burr reed	<i>Sparganium erectum</i>
Flowering rush	<i>Butomus umbellatus</i>
Lesser reedmace	<i>Typha latifolia</i>

Marginal:	
Water forget-me-not	<i>Myosotis scorpioides</i>
Water mint	<i>Mentha aquatica</i>
Water plantain	<i>Alisma plantago-aquatica</i>

Marsh plants:	
Marsh marigold	<i>Caltha palustris</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Purple loosestrife	<i>Lythrum salicaria</i>

* The term 'native' refers to plants of local origin, as opposed to those which have been introduced to this country.

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- L.B. Richmond upon Thames Design Guidelines Leaflet 2: - Car Parking in Front Gardens. Design Guidelines Leaflet 5: - Trees: Landscape Design, Planting and Care. Planning Information Leaflet 5: - Trees: Legislation and Procedure. Recycling leaflet: - Recycling Bio-degradable Waste.

