
Invasive species survey of site at

Cherry Orchard, Dublin 10.

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23/05/2023 24/05/2023 24/04/24

1. SITE DESCRIPTION

1.1 Site Location

Description of project and project area characteristics

The project subject of this invasive species screening will comprise of the construction of medium and high-density residential development with some commercial and public realm works at Cherry Orchard Point, Dublin 10.

“The proposed development (13,280sq.m GFA) involves the construction of a residential scheme consisting of 137no. units (31no. two-bed units and 106no. three-bed units) ranging in height from two to three storeys. The proposed development also includes the provision of landscaped public open space of 2,133sq. m. in addition to 2,050sq.m of public open space that was proposed as part of the approved Phase 1 application. Communal open space for the duplex and apartment units is provided across three dedicated communal amenity areas (602sq.m in total area) with private open space to serve the proposed units to be delivered through a mixture of rear gardens and terraces.

The proposed development will also involve the provision of sufficient car parking (including accessible and EV car parking spaces), bicycle parking spaces at surface level and motorbike spaces throughout the development. The development will also provide for all associated ancillary site development infrastructure including site clearance, boundary treatment, associated public lighting, internal roads and pathways, bin and bike stores, ESB substation, hard and soft landscaping, play equipment, boundary walls, and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply.

Methodology: Field visits were undertaken to all points within the site. Binoculars (7x50) and telescope (x50) were used. Visual, auditory, olfactory and spraint evidence was used to determine the presence of species. Conservation status of species was ascertained using NPWS Data, “The Irish Red Data Book 2:

Vertebrates” Whilde A., HMSO Belfast and Red List 3 Marnell, F., Kingston, N. & Looney, D. (2009) Ireland Red List No. 3: Terrestrial Mammals, National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland and Red List 4 Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., & Wilson, C.J. (2010) Ireland Red List No. 4 – Butterflies. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Ireland and “Exploring Irish Mammals” Hayden T and Harrington R., Town House and Country House Ltd, 2000. Habitats were identified using “A Guide to Habitats in Ireland”, Fossitt J., The Heritage Council, 2000.

A Garmin GPSmap handheld GPS unit was used to mark the location of items of interest on-site. Heavy tree cover may compromise the accuracy of GPS locations.

A digital camera (Canon 1000D and Canon IXUS) was used to document items of interest.

2 metre squared (m²) quadrants were sampled within the habitats on-site to establish the floral species composition at those points.

Habitats were identified using “Guide to Habitats in Ireland”, Fossitt J., Heritage Council 2000.

The site has the following habitat classifications; There one main habitat within the study area

Mosaic of Dry Meadows and Grassy Verges (GS2), Recolonising Bare Ground (ED3). There are associated hedgerows (WL1) with an area of Scrub(WS1) to the east across the road .

The timing has certain limitations and certain flora and fauna may be missed due to the time of year.

Mosaic habitat :

Holly (*Ilex aquifolium*)
Elder (*Sambucus niger*)
Bramble (*Rubus* spp)
Elm suckers.(*Ulmus* spp,)
Ash (*Fraxinus excelsior*)
Willow (*Salix* spp.)
Lonicera spp. hedge.
Sycamore. (*Acer pseudoplatanus*)
Holly (*Ilex* spp)
Clevers, (*Galium aparine*),
Creeping buttercup, (*Ranunculus repens*,
Chickweed, (*Stellaria media*),
Nettle, (*Urtica dioica*),
Dock, (*Rumex obtusifolius*),
Bindweed, (*Convolvulus arvensis*),
Thistle, (*Cirsium arvense*),
Bramble, (*Rubus fruticosus*),
Sun spurge,(*Euphorbia helioscopia*),
Ribwort Plantain (*Plantago lanceolata*),
Dandelion,(*Taraxacum officinale*),
Hawks beard,(*Crepis capillaries*),
Clover, (*Trifolium pratense*),
Herb Robert,(*Geranium robertianum*),
Groundsel, (*Senecio vulgaris*),
Cranesbill,(*Geranium dissectum*),
Rose bay willow herb, (*Epilobium angustifolium*,
Daisy, (*Bellis perennis*),
Ivy (*Hedra helix*),
Fathen (*Chenopodium album*)
Fumitory (*Fumaria officinalis*),
Lesser Celidine (*Ranunculus ficaria*),
Fools Parsely (*Aethusa cynapium*),
Buddleia, (*Buddleia davidii*)

Yarrow, (*Achillea millefolium*),
Ragwort (*Senecio jacobaea*),
Hogweed (*Heracleum sphondylium*),
Burdock (*Artium lappa*)
Teasel (*Dipsacus fullonum*)
Alder (*Alnus glutinosa*)
Birch (*Betula pubescens*)
Silverweed (*Potentilla anserine*)
Blackthorn (*Prunus spinosa*)
Meadowsweet (*Filipendula ulmaria*)
Oxford Ragwort (*Senecio squalidus*) Along the boundary with the railway.
Willow (*Salix* spp)
Marsh Orchid (*Dactylorhiza* spp.)
Pyramidal Orchis (*Anacamptis pyramidalis*)
Sedges (*Carex* spp)
Rushes (*Juncus* spp.)
and grasses including; Yorkshire fog (*Holcus lanatus*) Scutch (*Elymus repens*),
Annual meadow grass (*Poa annua*), Cocksfoot (*Dactylis glomerata*) and False oat
(*Arrhenatherum elatius*).

This is a heavily modified habitat as a result of human interference. The mosaic nature of the habitat stems from the years of neglect and has resulted in the encroachment of hedgerow into the meadow habitats. The grasses within the study area are all lodged and ungrazed.

The orchids are found clustered around the western boundary with the motorway in the recolonising bare ground section of the site at GR IO 07758 32794.

The sedges and rushes appear to occupy an area that at some stage was waterlogged within the recolonising bare ground.

The area currently bounding the railway track is characterised by Buddleia and Alder (*Alnus* spp.)

The scrub Area is characterised by Willow (*Salix* spp.), Buddleia and Mallow (*Malva sylvestris*) and is located across the road and east of the main site. The boundary with the motorway is a substantial hedgerow with dense tree and ground flora. This area is outside the boundary of the development site.

2 Results of invasive species survey

Buddleia davidii appears to be the sole invasive non-native species present especially in the plot across the main road to the east of the main site.

3. A description of the proposed development

The project consists of the construction of medium and high-density residential development with some commercial and public realm works at Cherry Orchard, Dublin 10.

4. Identification of the invasive species and control measures.

Buddleja davidii (spelling variant *Buddleia davidii*), also called summer lilac, butterfly-bush, or orange eye, is a species of flowering plant in the family Scrophulariaceae, native to Sichuan and Hubei provinces in central China, and also Japan. It is widely used as an ornamental plant, and many named varieties are in cultivation. The genus was named *Buddleja* after Reverend Adam Buddle, an English botanist. The species name *davidii* honors the French missionary and explorer in China, Father Armand David, who was the first European to report the shrub. It was found near Ichang by Dr Augustine Henry about 1887 and sent to St Petersburg. Another botanist-missionary in China, Jean-André Soulié, sent seed to the French nursery Vilmorin, and *B. davidii* entered commerce in the 1890s.

B. davidii was accorded the RHS Award of Merit (AM) in 1898, and the Award of Garden Merit (AGM) in 1941.[4]

Description

Buddleja davidii is a vigorous shrub with an arching habit, growing to 5 m (16 ft) in height. The pale brown bark becomes deeply fissured with age. The branches are

quadrangular in section, the younger shoots covered in a dense indumentum. The opposite lanceolate leaves are 7–13 cm (3–5 inches) long, tomentose beneath when young. The honey-scented lilac to purple inflorescences are terminal panicles, < 20 cm (8 inches) long. Flowers are perfect (having both male and female parts), hence are hermaphrodite rather than monoecious (separate male and female flowers on the same plant) as is often incorrectly stated.

In his 1979 revision of the taxonomy of the African and Asiatic species of *Buddleja*, the Dutch botanist Anthonius Leeuwenberg sank the six varieties of the species as synonyms of the type, considering them to be within the natural variation of a species, and unworthy of varietal recognition. It was Leeuwenberg's taxonomy which was adopted in the *Flora of China* published in 1996. However, the distinctions of the former varieties are still widely recognized in horticulture.

Buddleja davidii cultivars are much appreciated worldwide as ornamentals and for the value of their flowers as a nectar source for many species of butterfly. However, the plant does not provide food for butterfly larvae, and buddlejas might out-compete the host plants that caterpillars require.

The species and its cultivars are not able to survive the harsh winters of northern or montane climates, being killed by temperatures below about –15 to –20 °C .

There are approximately 180 *davidii* cultivars, as well as numerous hybrids with *B. globosa* and *B. fallowiana* grown in gardens. Many cultivars are of a dwarf habit, growing to no more than 1.5 m (5 feet).

Invasive species

Buddleja davidii has been designated as an invasive species or a "noxious weed" in a number of countries in temperate regions, including the United Kingdom, the Republic of Ireland and New Zealand. It is naturalized in Australia and in many cities of central and southern Europe, where it can spread on open lands and in gardens.

B. davidii was first documented as an invasive species in the United Kingdom during 1922. It is now often seen there along railway lines and on the sites of derelict

factories and other buildings. The plant frequently grew on urban bomb sites during the aftermath of World War II, earning it the nickname of "the bomb site plant".

B. davidii is widely marketed throughout the United States, where it has reportedly become invasive in some, but not all, areas within which it has been planted. Although its flowers feed many native butterflies and other pollinators, plantings of the species are now controversial. To prevent seeding and to promote further flowering, its blossoms need to be removed ("deadheaded") as soon as they are spent.

The northwestern U.S. state of Oregon, which designated *B. davidii* as a "noxious weed" and initially prohibited entry, transport, purchase, sale or propagation of all of its varieties, amended its quarantine in 2009 to permit certain cultivars when approved or when proven to be interspecific hybrids. The adjacent state of Washington has taken actions that are similar to those of Oregon. There is rarely any necessity to eradicate *Buddleia* on sites as it does not compete well against new plantings associated with new developments. Many Glyphosphate herbicides will easily control *buddleia* as will physical extraction.

Potential or Known Impacts:

It forms monocultures and can prevent the growth and regeneration of native species. It may displace primary colonisers across different habitats.

It can reproduce via viable seeds, and through stem and root fragments. The seeds may be viable for up to 2.5 years, but is generally a short lived seed bank. It can also shade out ground flora.

In Europe, transport routes may be impacted as this species may readily colonise these routes. Visibility may be impacted due to its height.

Native pollinators may be more drawn to this species compared to native species, which may lead to a decline in native species.

It was introduced as an ornamental species, that had a benefit as a food source for pollinators. It has readily escaped into the wild.

Methods for Prevention:

Do not plant this species – plant native species instead.

Do not take or give cuttings from wild or cultivated plants.

Deadhead specimens that you are removing. Dispose with care as it can rapidly germinate and grow in different habitats.

Know what you are growing.

Never collect plants from the wild.

Safely dispose of plants and growing media.

5. Conclusion

There is currently only one non-native invasive species on site in Cherry Orchard Point. There is no necessity to eradicate this plant as the process of development will control its spread.

Appendix

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Plate 1 Site to south



Plate 2 Orchid rich soil along motorway boundary



Plate 3 Mosaic Habitat with Buddleia to right and left

