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Ulmus × *hollandica* Miller var. *insularum* Richens, var. nov.

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ABSTRACT

The principal nothotaxon of *Ulmus* × *hollandica* in the Channel Islands is described and named **Ulmus** × **hollandica** Miller var. **insularum** Richens, **var. nov.** It is restricted to the Channel Islands and to the adjacent Cotentin peninsula of France.

THE CHANNEL ISLAND ELMS

Traditionally, woodworkers in northern France and Belgium have distinguished between two categories of elm: small-leaved trees designated 'orme mâle' or 'orme rouge' and large-leaved trees designated 'orme femelle' or 'orme blanc' (Duhamel du Monceau 1755; Huberty 1904). When, later, these elms were assigned to conventional botanical categories, the small-leaved elms were equated with *Ulmus campestris* L. or *U. suberosa* Moench, and the large-leaved elms with *U. montana* Stokes. Re-interpreted in the light of the taxa accepted today, the small-leaved elms are *U. minor* Miller and the large-leaved elms mainly *U.* × *hollandica* Miller (*U. glabra* Hudson × *U. minor*).

Small-leaved and large-leaved elms occur also in each of the larger Channel Islands. The large-leaved elm of Guernsey was known, as on the French mainland, as 'orme femelle' (Jee 1961, 1972). Presumably the small-leaved elm of Guernsey was 'orme mâle.'

The situation in Jersey is more complicated. According to Le Maistre (1958, 1966), the small-leaved elm of this island is known as 'orme rouge' as in France, but its other designation 'orme femelle', was what in France applied to the large-leaved elms. Conversely, the large-leaved elm of Jersey is 'orme blanche' (orme retaining the Latin gender in Jersey though not in Guernsey) or 'orme mâle'. It would appear that at some stage the significance of 'orme mâle' and 'orme femelle' has become reversed.

The small-leaved elms of the Channel Islands were treated by earlier botanists, notably Babington (1839), Piquet (1896), Marquand (1901) and Lester-Garland (1903) as *U. campestris* or *U. suberosa* as on the Continent. They are now allocated to *U. minor* or, in the case of Guernsey, to *U. minor* var. *sarniensis* (Loudon) Druce.

The proper botanical understanding of the large-leaved elms of the Channel Islands has been slower in coming. In the 19th century, the large-leaved hybrids now regarded as *U.* × *hollandica* were frequently treated as within the circumscription of *U. montana* (= *U. glabra*), the Wych Elm. This species does occur, but not frequently, in the larger Channel Islands, and is most unlikely to be the *U. montana* of the earlier botanists which was stated to be of frequent occurrence. That it is quite different from *U. glabra* was clearly recognized by Jee (1961, 1972). McClintock (1975) correctly assigned it to *U.* × *hollandica*. It had meanwhile been recognized as a biometrically distinct population of *U.* × *hollandica*, restricted to the Channel Islands and northern France, by Richens & Jeffers (1975), in whose paper it is referred to as "Hybrid III."

There are some elms in Jersey and Sark intermediate between the typical large-leaved and small-leaved elms. These are probably second-generation derivatives of the large-leaved elm or hybrids between it and the small-leaved elm.

The large-leaved elm of the Channel Islands occurs on all the larger islands (Alderney, Guernsey, Jersey, Sark) and is a major component of the landscape of each. It is distinctive in appearance, not widely variable, and of limited overall distribution (the Channel Islands and northern France). It has therefore been considered worthy of naming. Its description is as follows:

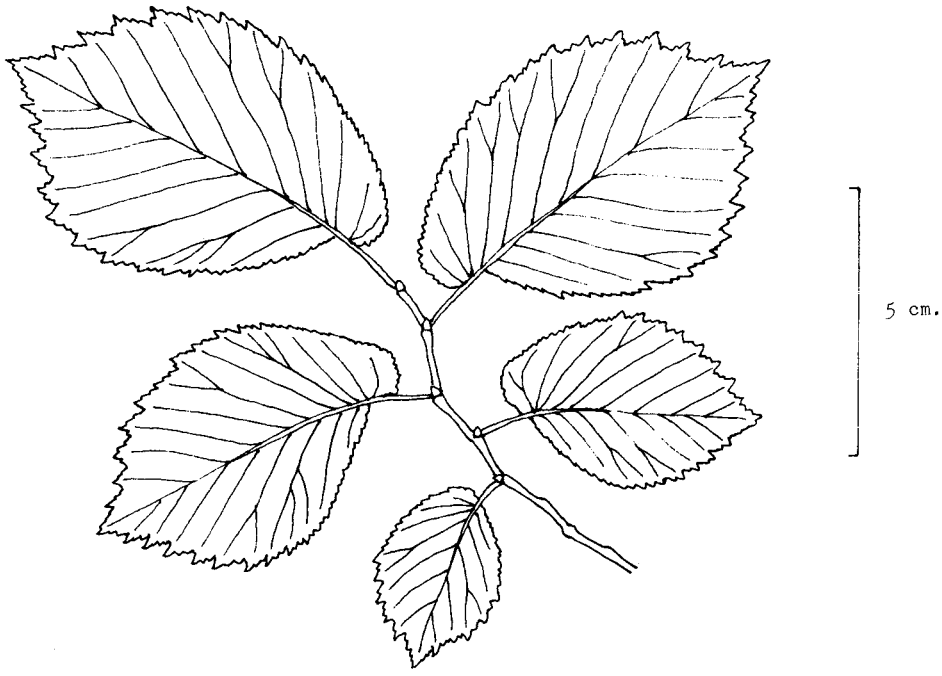

FIGURE 1. *Ulmus* × *hollandica* Miller var. *insularum* Richens.

Ulmus × **hollandica** Miller var. **insularum** Richens, **var. nov.** (Fig. 1)
Coma diffusa; ramificatio irregularis. Folia subdistalia ramulorum brevium late ovata, supra laevia, valde asymmetrica, 65–85 mm longa, 45–60 mm lata; ratio latitudinis laminae longitudini laminae 0·65–0·75; dentes marginis in parte distali foliae acuti, 5·0–6·0 mm lati, 2·5–3·0 mm alti; denticulae ibidem acutae, 2–3 in uno dente; summa dentium denticularumque 114–148; caespites pilorum in axillis nervorum sub foliis densi et saepe confluentes; petioli glabri vel sparse pilosi, 8–12 mm longi; ratio longitudinis petioli longitudini laminae 0·11–0·16.

Canopy open; branching irregular. Subdistal leaves of the short shoots (Fig. 1) broadly ovate, smooth above, highly asymmetric, 65–85 mm long, 45–60 mm broad; ratio breadth of leaf/length of leaf 0·65–0·75, primary teeth of the leaf margin on the shoulder of the leaf, acute, 5·0–6·0 mm broad, 2·5–3·0 mm deep; secondary teeth in the same region acute, 2–3 per primary tooth; total of primary plus secondary teeth 114–148; hair tufts in the axils of the nerves beneath the leaf dense and often confluent; petioles glabrous or sparsely pilose, 8–12 mm long; ratio length of petiole/length of lamina 0·11–0·16. Flowers and fruit not investigated.

HOLOTYPUS; Jersey, St Mary, *Mrs F. Le Sueur*, 1968–1970 (**CGE**). Isotypus: **JSY**.

The two nothotaxa of *U.* × *hollandica* of widest distribution in Great Britain are var. *hollandica*, the so-called Dutch elm, and var. *vegeta* (Loudon) Rehder, the Huntingdon Elm. Var. *insularum* differs from both nothotaxa in its relatively longer petiole, greater foliar asymmetry and more extensive axillary tufts on the lower surface of the lamina. In habit, var. *insularum* is closer to var. *hollandica* than to var. *vegeta*.

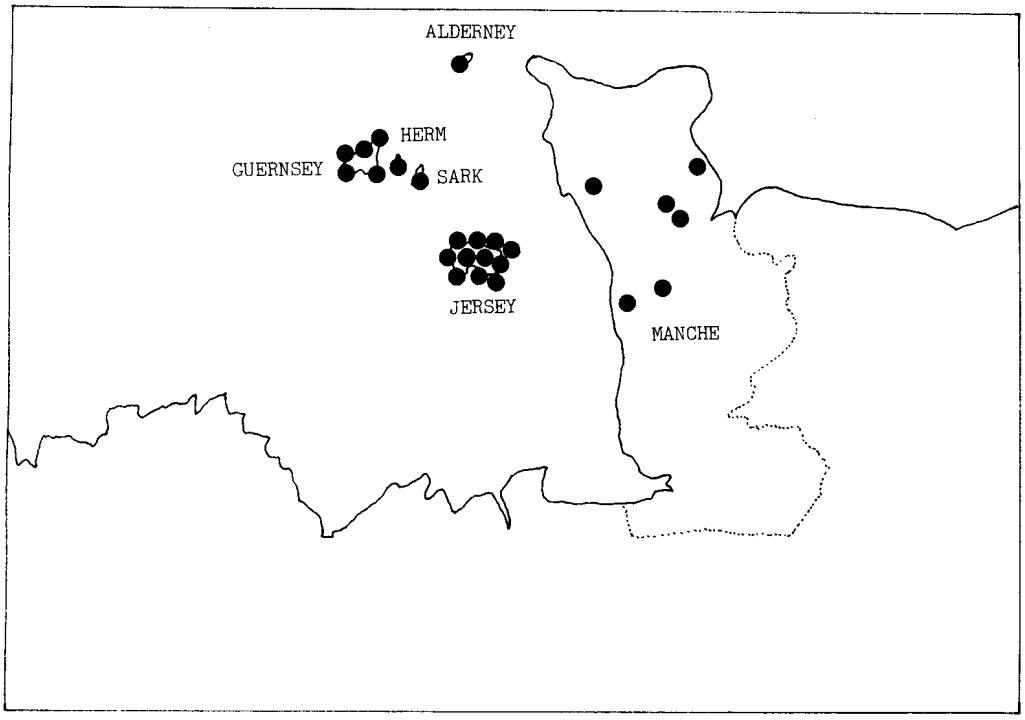

FIGURE 2. The distribution of *Ulmus* × *hollandica* var. *insularum*.

DISTRIBUTION

The elm occurs in Alderney, Guernsey (Câtel, St Martin, St Peter in the Wood, St Saviour, Vale), Herm, Jersey (Grouville, St Brelade, St Clement, St Helier, St John, St Martin, St Mary, St Ouen, St Peter, St Saviour, Trinity), Sark and France (Carquebut, Feugères, Fontenay-sur-Mer, Geffosses, St Côme-du-Mont, St Maurice-en-Cotentin).

As is clear from Fig. 2, var. *insularum* is restricted to the Channel Islands and the adjacent Cotentin peninsula. The putative parental taxa occur both in the islands and on the French mainland. It is most likely that var. *insularum* originated in Cotentin since *U. glabra* is probably wild there and *U.* × *hollandica* is represented on the peninsula by a whole range of nothotaxa of which var. *insularum* is but one. If it had been taken to the islands as clonal material and propagated vegetatively thereafter, the low variability of *U.* × *hollandica* in the islands compared with its considerable variability in Cotentin would have an explanation.

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