

SHORT COMMUNICATION

Rubus latior A. Beek – a new species of *Rubus* (Rosaceae) in France and in the Netherlands

A. van de Beek¹

Key words

Rubus latior
Rubus schlechtendalii

Abstract – Müller & Lefèvre (Müller 1859: 108) identified a bramble from the Forêt de Retz in the North of France with *Rubus schlechtendalii* Weihe ex Link (1822: 62). This identification appeared to be incorrect. The *R. schlechtendalii* from Northern France, also found in the South of the Netherlands, turned out to be an unpublished species. It is published here under the name *Rubus latior* A. Beek. Differences to *R. schlechtendalii* are indicated, and a full description is provided.

Samenvatting – Müller & Lefèvre (Müller 1859: 108) vermelden *Rubus schlechtendalii* Weihe ex Link (1822: 62) voor het Forêt de Retz in Noord-Frankrijk. Hun determinatie werd overgenomen door latere auteurs. Tijdens veldonderzoek in 1973 in het Forêt de Retz ontstond twijfel aan de juistheid van dit oordeel. Toen hetzelfde taxon in 1996 ook in Nederland werd aangetroffen, was dat aanleiding om de planten aan een kritisch onderzoek te onderwerpen. Er werd opnieuw veldonderzoek gedaan in Noord-Frankrijk, op de vindplaats in Noord-Brabant en naar vindplaatsen van *R. schlechtendalii* in Duitsland en het noorden van Nederland. Bovendien werden alle relevante planten uit de herbaria in Leiden (L) en Parijs (P) onderzocht.

De uitkomst van het onderzoek is eenduidig: het gaat om twee verschillende taxa. Müller & Lefèvre (Müller 1859) geven het Noord-Franse taxon al een andere naam als synoniem: *Rubus grandiflorus*. Omdat deze alleen als synoniem is vermeld is deze publicatie niet geldig. Bovendien kan het epitheton niet alsnog worden gebruikt omdat er al een *R. grandiflorus* Kalt. (1844) bestaat. Daarom wordt het Franse en Brabantse materiaal nu gepubliceerd onder de naam *Rubus latior*.

De belangrijkste verschillen met *Rubus schlechtendalii* zijn: de kleur van de plant is grijsachtig groen of soms bleekgroen (niet donkergroen of soms heldergroen zoals bij *R. schlechtendalii*), de bladloot is kantig en dicht kort behaard (niet rondachtig tot soms kantig en matig tot vrij dicht behaard met afstaande lange haren); de bladeren zijn vrij breed gezaagd (niet zeer scherp en smal) en aan de onderzijde kort behaard vaak met een op stof lijkende uiterst fijne sterbehaaring (niet matig behaard met lichte kamharen op de nerven); het topblaadje is ± elliptisch, groter en breder, met een langere spits en een uitgerande voet (niet smal omgekeerd eirond met een afgeronde voet en een matig lange spits); de bloeiwijze is breed piramidaal of cilindrisch met afgeknotte top en afstaande zijtakken (niet smal piramidaal, met opstijgende zijtakken), zeer dicht kort tot viltig behaard (niet met matige, afstaande beharing), met korte stekels (niet vrij lange en slanke stekels); de kelkslippen zijn zwak teruggeslagen (niet duidelijk teruggeslagen) en de vruchtbeginsels dichtbehaard (niet kaal of met enkele haren).

Rubus latior is algemeen in het Forêt de Retz en ook in het Bois de Compiègne. Verder is de soort gevonden in Vincennes in de buurt van Parijs en op een paar plaatsen in het Seinegebied tussen Parijs en Rouen en in Nederland bij Ulvenhout. In het herbarium van wijlen Joz van Winkel bevindt zich een exemplaar zonder vermelding van vindplaats. Als dit uit België zou zijn, zou het een meer aansluitend areaal geven, maar het is ook mogelijk dat hij de plant in Frankrijk heeft verzameld, hoewel zijn collecties van *R. latior* uit het Forêt de Retz door hem (onjuist) gedetermineerd zijn als *R. subinermis* P.J. Müll. & Lefèvre (1859). Al met al lijkt het erop dat de vindplaatsen, zoals dikwijls bij bramen, meer de verspreiding van de onderzoekers dan van de planten weergeven.

Het voorkomen in Noord-Brabant (en soms ook in Noord-Limburg en Zuidoost-Gelderland) van een soort die in Noord-Frankrijk ten westen van de Maas voorkomt past in een patroon. Hetzelfde doet zich voor bij *Rubus aciodontus* P.J. Müll. & Lefèvre (1859), *R. eglandulosus* P.J. Müll. & Lefèvre (1859), *R. taxandriae* Vannerom ex A. Beek (1998), *R. insectifolius* P.J. Müll. & Lefèvre (1859), *R. calotemnus* A. Beek (1998).

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¹ Petenbos 8, 3904 BN Veenendaal, the Netherlands;
e-mail: beekavd@xs4all.nl

INTRODUCTION

Müller & Lefèvre (in Müller 1859) mention the occurrence of *Rubus schlechtendalii* Weihe ex Link (1822: 62) from the Forêt de Retz in the North of France. The same taxon was collected and identified as the same species by Questier in Billot's Flora Galliae et Germaniae exsiccata nr 1469 (Billot 1846–60). Sudre (1908–13) confirms their decisions. During field work in the Forêt de Retz in 1973, it seemed that the plants which were identified as *R. schlechtendalii* look very different from the plants in Germany and the North of the Netherlands. This was confirmed by later investigations.

A critical comparison of the plants of the Forêt de Retz with those of Weihe upon which Link based his publication of *Rubus schlechtendalii*, clearly indicates that they are not identical. Consequently, the plants from Northern France appear to be a distinct species. Since the same taxon was also found in the South of the Netherlands and thus its distribution is obviously more than local, there is reason enough to publish this species. Müller & Lefèvre (Müller 1859: 108) add another name, *R. grandiflorus*, as a synonym. As such this name was not validly published (ICN, art. 36.1c). Apart from this, the name cannot be used for the taxon under investigation, because it is a later homonym of *R. grandiflorus* Kalt. (1844). Hence another epithet, *latior*, was chosen here. This new publication was already announced in Beek et al. (2017).

MATERIAL AND METHODS

All relevant specimens in the vast *Rubus* collections in P and L were studied. The taxon was re-examined in the Forêt de Retz, and these plants were compared with the plants that were collected in the Netherlands. In addition, the variability of *R. schlechtendalii* in its locus classicus region and in the North of the Netherlands was investigated, to become a solid overview of both taxa.

RESULTS

The taxon from the North of France and the South of the Netherlands differs conspicuously from *R. schlechtendalii* (Table 1). In the field, the taxa differ in colour: *R. schlechtendalii* is dark or sometimes bright green, while *R. latior* has a greyish aspect, which is caused by the colour of the cuticula and not by stellate hairs, as in *R. adscitus* Genev. (1860).

The primocane of *R. latior* is angular with (rather) dense tufted hairs, and short prickles (3–5 mm) (Fig. 1), while *R. schlechtendalii* has rounded to angular stems with patent hairs and longer (4–8 mm) prickles (Fig. 2 and 3). *Rubus latior* has rather short hairs at the underside of the leaves, between which often flour-like, probably extremely fine stellate hairs are present. *Rubus schlechtendalii* has longer hairs, mainly on the veins. Also the serrature of the leaflets of both species differs: *R. latior* has rather broad and obtuse teeth, while those of *R. schlechtendalii* are narrow and very sharp.

The terminal leaflets of *Rubus latior* (Fig. 4, 5, and 6) are broader and larger than those of *R. schlechtendalii* (Fig. 7, 8, and 9), ± elliptical with a broad emarginate base and longer tip. Because of the longer tip and the wider base, the leaflets of *R. latior* as a whole appear much broader than those of *R. schlechtendalii*, which are obovate, have a narrowed base, and a shorter tip, even if the formal measurements of the ratio of width and length are not really different.

The shape and indumentum of the inflorescence is also different: the inflorescence of *Rubus latior* (Fig. 10 and 11) has a truncate apex, with a densely hirsute axis and only fine pricklets (Fig. 12 and 13), while *R. schlechtendalii* usually has a narrow pyramidal inflorescence (Fig. 14) with long, patent hairs (Fig. 15) on the axis and longer prickles (Fig. 16). The ovaries of *R. latior* are densely hairy (Fig. 13), while those of *R. schlechtendalii* are glabrous or provided with a few scattered hairs.

Table 1. Main morphological differences between *Rubus latior* A. Beek, nov. spec., and *Rubus schlechtendalii* Weihe ex Link.

Character	<i>R. latior</i>	<i>R. schlechtendalii</i>
primocane	angular with flat sides	roundish to angular
hairs on primocane	dense, short	moderate to dense, patent
length of prickles	3–5 mm	4–8 mm
color of leaves	greyish or sometimes pale green	dark or sometimes bright green
base of terminal leaflet	broad, emarginated	narrowed, rounded
hairs on underside of leaves	rather short, often with dust like very fine toment	moderate, pectinate
teeth of leaves	obtuse, rather large	very sharp
% width of length terminal leaflet	50–72 %	53–66 %
length of leaf tip	15–30 mm	10–20 mm
inflorescence	cylindrical, obtuse	narrow pyramidal
prickles axis	3–4 mm	3–7 mm
hairs axis	densely short hirsute and tomentose	moderately, long and patent
sepals	loosely reflexed	reflexed
ovaries	densely hairy	glabrous or with a few hairs



Fig. 1. Primocane of *Rubus latior* A. Beek, Forêt de Retz (Oise, France), 22 June 2011. Photo: A. van de Beek.



Fig. 2. Primocane of *Rubus schlehtendalii* Weihe ex Link, Noordwolde (Province of Friesland, the Netherlands), 4 July 2011. Photo: A. van de Beek.



Fig. 3. Primocane of *Rubus schlechtendalii* Weihe ex Link (Beek, nr. B 592, Mennighüffen (Nordrhein-Westfalen, Germany), L [L.1913889]). Photo: A. van de Beek.



Fig. 4. Primocane with leaves of *Rubus latior* A. Beek, Forêt de Retz (Oise, France), 22 June 2011. Photo: A. van de Beek.



Fig. 5. Leaf of *Rubus latior* A. Beek, Forêt de Retz (Oise, France), 22 June 2011. Photo: A. van de Beek.



Fig. 6. Terminal leaflet of *Rubus latior* A. Beek (Beek, nr.B 783, Forêt de Retz (Oise, France), L [L.1913891]). Photo: A. van de Beek.



Fig. 7. Primocane with leaves of *Rubus schlechtendalii* Weihe ex Link, Noordwolde (Province of Friesland, the Netherlands), 4 July 2011. Photo: A. van de Beek.



Fig. 8. Leaf of *Rubus schlechtendalii* Weihe ex Link (Weber, nr. 68.814.10, Mennighüffen (Nordrhein-Westfalen, Germany), L [L.1913887]). Photo: A. van de Beek.



Fig. 9. Terminal leaflet of *Rubus schlehtendalii* Weihe ex Link (Beek, nr. A 1066, Langweer (Province of Friesland, the Netherlands), L [L.3280533]). Photo: A. van de Beek.



Fig. 10. Inflorescence of *Rubus latior* A. Beek, Forêt de Retz (Oise, France), 22 June 2011. Photo: A. van de Beek.



Fig. 11. Inflorescence of *Rubus latior* A. Beek (Beek, nr. B 773, Forêt de Retz (Oise, France), L [L.1913894]). Photo: A. van de Beek.



Fig. 12. Apex of inflorescence of *Rubus latior* A. Beek with little prickles (Beek, nr. B 773, Forêt de Retz (Oise, France), L [L.1913894]). Photo: A. van de Beek.



Fig. 13. Hairs on axis and ovaries of *Rubus latior* A. Beek (Beek, nr. B 783, Forêt de Retz (Oise, France), L [L.1913890]). Photo: A. van de Beek.

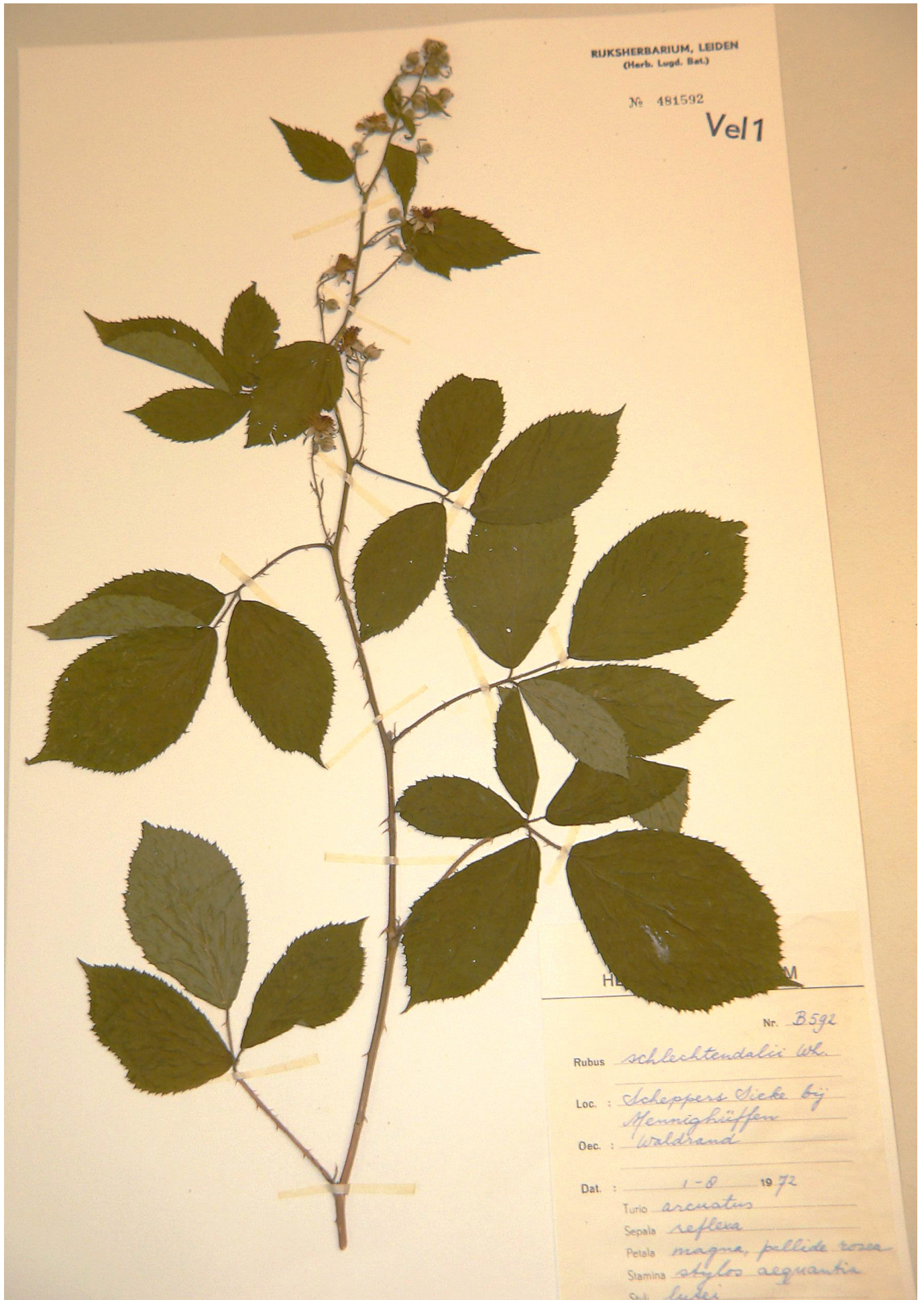


Fig. 14. Inflorescence of *Rubus schlechtendalii* Weihe ex Link (Beek, nr. B 592, Mennighüffen (Nordrhein-Westfalen, Germany), L[L.1913888]). Photo: A. van de Beek.



Fig. 15. Hairs in inflorescence of *Rubus schlechtendalii* Weihe ex Link (Beek, nr. B 592, Mennighüffen (Nordrhein-Westfalen, Germany), L [L. 1913888]). Photo: A. van de Beek.



Fig. 16. Prickles on axis of *Rubus schlechtendalii* Weihe ex Link (Beek, nr. A 1066, Langweer (Province of Friesland, the Netherlands), L [L. 3280533]). Photo: A. van de Beek.

DESCRIPTION

Rubus latior A. Beek, nov. spec.

Holotype: P [P03241929]: 'Rubus schlechtendalii W. et N. Forêt de Retz, près de Cuvergnon (Oise), Jlllet. 1861, Lefèvre'. Fig. 17.

Probable isotype: P [P03241928]. Fig. 18.

Differt a *Rubus schlechtendalii* Weihe ex Link (1822: 62) turione angulato dense breviter piloso aculeis 3–5 mm longis foliis colore cinerascens subtus breviter pilosis saepe pilulis stellatis sicut pulvis vel farina obtuse latiore serrata foliolo terminale basi lata emarginata cuspidate 15–30 mm longa inflorescentia cylindrica obtusa rachide dense breviter hirsuta et tomentosa sepalis laxè reflexis germinibus hirsutis.

Primocane angular with flat sides, diameter 4–7 mm, densely short hairy. Prickles 14–25 per internode, somewhat unequal, from a 3–5 mm large base reclining to curved, up to 3–5 mm long. Stipules linear, ± 10 mm long, usually with tender (almost) sessile glands. Petiole 6–10 cm long, shorter than the lower leaflets, densely hairy, with 12–20 curved prickles, sometimes with some stipitate glands. Leaves 5-foliolate, upside moderate hairy to glabrous, on the ventral side short hairy and often also with a fine dust or flour-like substance probably consisting of very fine stellate hairs. Margin with rather wide obtuse, sometimes patent teeth with a tip, not or slightly periodical. Petiolules of the lower leaflets 3–6 mm long. Terminal leaflet 10–14 cm long, elliptic or somewhat (ob-)ovate, with a broad emarginated base, rather abruptly (rather) long attenuated into a 15–30 mm long tip; width 50–72 % of its length. Length of the petiolule 19–38(–47) % of the length of the leaflet.

Flowering branch angular, short hairy. Upper leaves sometimes slightly greyish tomentose on the ventral side. Prickles 3–13 per internode, somewhat unequal, from a (2–)3–4 mm large base curved, gradually attenuated, 3–4 mm long. Inflorescence large pyramidal or cylindrical, truncate, usually leafy, with leafy bracts in the apex, densely short hairy, often almost tomentose, with (almost) sessile glands and scattered weak prickles. Peduncles patent to lightly ascending, divided below or above the middle, sometimes fasciculate, the longest ones with 4–5 flowers. Pedicels 10–20 mm long, densely tomentose and short hairy, with subsessile glands and 0–10 stipitate glands and 0–10 prickles. Sepals loosely reflexed, densely grey tomentose, with subsessile glands, sometimes a stipitate gland and 0–5 prickles. Petals pink, large elliptical to obovate, 9–13 mm long. Stamens ± as long as the yellowish or flesh-coloured styles. Anthers glabrous. Ovaries densely hairy. Receptacle hairy. Flowering June – August.

Name — The name of the new species, *Rubus latior* A. Beek, refers to the leaves, which are wider than those of *R. schlechtendalii* Weihe ex Link.

DISCUSSION

Rubus latior can only be confused with *R. schlechtendalii* in the herbarium, and even then only if one overlooks the different serrature of the leaves and only takes into account absolute numbers without considering the qualitative differences. The aspect of *R. latior* with its characteristic colour and its dense, partial stellate hairs reminds of *R. adsciticus*, which occurs in the same region, whereas *R. schlechtendalii* is more similar to *R. silvaticus* Weihe & Nees (1824). The problem is not to distinguish the taxa, as is often the case with brambles (and other plants), but our capability to formulate the differences.

In the collection of the Botanical Exchange Club, Van Winkel

distributed a specimen of *Rubus latior* as *R. subinermis* P. J. Müll. & Lefèvre (*BatEc* 32, L [L.1919104]). Vannerom followed suit by adding this name to the *R. schlechtendalii* of *Questier in Sudre BE 250* (*Sudre* 1903–17) in L [L.19191102/3]. However, *R. subinermis* P. J. Müll. & Lefèvre (= *R. subaculeatus* Gandg. 1884, see Beek et al. 2017) is a different taxon, with ovate-elliptical gradually attenuated leaves with shallow serrature, a narrow inflorescence with ascending thin branches and rather numerous short stalked glands (type in P [P02573658]).

Rubus schlechtendaliiiformis H. E. Weber (1986) also has larger leaves than *R. schlechtendalii*, but this species has stronger prickles and long soft hairs on the ventral side of the leaves.

REPRESENTATIVE SPECIMENS OF *RUBUS LATIOR*

Rubus latior is common in the Forêt de Retz and also in the Bois de Compiègne in North France. The species was also found in Vincennes near Paris and at several localities in the Seine area between Paris and Rouen. In the Netherlands, it was collected near Ulvenhout in the Province of Noord-Brabant.

The herbarium of the late Jos van Winkel contains a sample of *Rubus latior* without an annotation about its locality. If this specimen would be from Belgium, the distribution area of *R. latior* would be more continuous. However, Van Winkel can also have collected the plant in France, though he identified his gatherings of *R. latior* from the Forêt de Retz (incorrectly) as *R. subinermis* P. J. Müll. & Lefèvre (1859). As often with *Rubus* species, the localities of this taxon probably display more the distribution of collectors than of plants.

The occurrence in the Province of Noord-Brabant (and sometimes also in North Limburg and Southeast Gelderland) in the Netherlands of a species which is also present in North France west of the river Meuse fits into a pattern. *Rubus aciodontus* P. J. Müll. & Lefèvre (1859), *R. eglanulosus* P. J. Müll. & Lefèvre (1859), *R. taxandriae* Vannerom ex A. Beek (1998), *R. insectifolius* P. J. Müll. & Lefèvre (1859) and *R. calotemnus* A. Beek (1998) have a similar distribution.

France

Aisne — *Questier in Billot, Flora Galliae et Germaniae exiccata* 1469, 29.6–4.7.1854, Bords des chemins et lisières de la forêt de Villers-Cotterets (P [P03241930], [P04148118], [P03010375], [P03210740], [P04182183], [P04153106], [P04155535]; L [WAG.1201083]); *Questier nr. 18*, forêt de Villers-Cotterets, 1860 (P [P03241931]); *Didier, Ronces Gauloises* 503, Bois de Villers-Cotterets, au Rond Capitaine, 18.7.1935 (P [P04152953], [P04170243], [P00783775]); *Didier* 1236, Bois de Villers-Cotterets, près de la Carrefour de la Bourfontaine, 13.7.1951 (P [P04181128], [P04181127], [P04170245], [P00783759]).

Oise — *Questier in Sudre, Bathotheca Europaea* 250, Forêt de Retz, au 14 Frères, à St. André, etc., 7.1855 (L [L.1919702/3]); *Didier, Ronces Gauloises* 707, Bois à l'Ouest de Crepy-en-Valois, 25.7.1939 (P [P00783776], [P04170244], [P04152954]); *Beek, nr. B 773*, Forêt de Retz, 14.7.1973 (L [L.1913892/3/4]); *Beek, nr. B 783*, Forêt de Retz, 14.7.1973 (L [L.1913890/1]); *Van Winkel, s.n.*, *R. subinermis* P. J. Müll. & Lefèvre, St. Jean-aux-Bois 'La Malaisse', 7.12.1977 (*BatEc* 32) (L [L.1919704]).

Seine — *Didier, Société Française d'Echanges de plantes* 1945, 991. Partie est du bois de Vincennes, 7.7.1943 (P [P04146893], [P04341742], [P04170247]); *Didier, Ronces Gauloises* 824, Bois de Vincennes à l'est de la route des Merisiers, 5.7.1942 (P [P04152951], [P00783779], [P04170246]; L [WAG.1201084/5]).

Eure — *Toussaint* 464/5, Bois de Falaise, à Giverny, 7.7.1896 (P [P04151490]); *Toussaint*, Montauve, sentier d'Ecrosville aux Fosses, 3.7.1923 (P [P04151487]).

Netherlands

Noord-Brabant — *Beek, nr. 9672*, Chaam, weg naar Ulvenhout, bij km 3, bij bushalte, begin bospad, 50–24–12, 26.7.1996 (L [L.3273675/76/82]); *Beek, nr. 9647*, tussen Ulvenhout en Chaam, bij bushalte langs bospad, aug. 1996 (L [L.3279536/7]).



Fig. 17. The holotype of *Rubus latior* A. Beek (Lefèvre s.n., P [P03241929]). Photo: C. Sarthou.



Fig. 18. Probable isotype of *Rubus latior* A. Beek (Lefèvre s.n., P [P03241928]). Photo: C. Sarthou.

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