

SHORT COMMUNICATION

Rubus paraplicatus* K. Meijer (Rosaceae) – a new species of the series *Rubus

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Key words

Rubus

Rubus paraplicatus

Abstract – A new species of the genus *Rubus* L. (Rosaceae), *R. paraplicatus* K. Meijer, is described. The new species was discovered in the south of the Province of Friesland, the Netherlands, and belongs to the series *Rubus*. It differs from the other species of the *Rubus plicatus*-complex, *R. plicatus*, *R. opacus* and *R. bertramii*, by its glabrous anthers and hairy receptacles, its broad, almost triangular ovate, very gradually attenuated terminal leaflets, and its simple racemose inflorescences that are either entirely prickleless or are set with very few prickles.

The centre of the distribution area of *Rubus paraplicatus* is the Province of Friesland and the adjacent areas in the Province of Drenthe, but the distribution area extends eastwards to Hannover in Lower Saxonia, Germany, southwards to Sprang-Capelle in the Province of Noord-Brabant, and westwards to the dune forests around the Hague in the Province of South-Holland, the Netherlands.

Samenvatting – Bij het karteren van bramen werd in het zuiden van Friesland herhaaldelijk een braam gevonden uit de groep rond *Rubus plicatus* Weihe & Nees. Omdat deze planten lange meeldraden en behaarde vruchtbeginsels hebben werden ze aanvankelijk als *R. bertramii* G. Braun geïdentificeerd. Toen de braam herhaaldelijk op verschillende plaatsen werd gevonden en steeds goed te onderscheiden was, werd aan de braam een voorlopige naam gegeven. Nadat bij herbariumonderzoek bleek dat deze braam een groter verspreidingsgebied had, werd het duidelijk dat het om een afzonderlijk te onderscheiden taxon gaat dat in dit artikel als de nieuwe soort *Rubus paraplicatus* K. Meijer wordt beschreven.

De nieuwe soort wijkt af van de andere soorten rondom het *Rubus plicatus*-complex door diens breed eironde topblaadjes met hartvormige voet en zeer geleidelijk toegespitste top; de trosvormige bloeiwijze met slechts zelden aan de basis een tak met twee bloemen; de bloeiwijze zonder of met slechts enkele kleine teruggerichte of iets gebogen stekels; de kale antheren in combinatie met behaarde vruchtbeginsels; daarnaast zijn opvallend de vaak 5-tallige bladen in de bloeiwijze.

Rubus paraplicatus heeft zijn kerngebied in Friesland en aangrenzend Drenthe; het areaal strekt zich uit via Overijssel, Flevoland en Gelderland naar het westen tot de duinbossen rond Den Haag en naar het zuiden tot Sprang-Capelle in Noord-Brabant; naar het oosten werd de braam gevonden tot in Nedersaksen, Duitsland, bij Hannover.

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INTRODUCTION

During the mapping of the occurrence of *Rubus* L. in the northern part of the Netherlands, an unknown blackberry was found in several places. The unknown blackberry belongs to the group of *R. plicatus* Weihe & Nees (Weihe & Nees von Esenbeck 1822–27), but differs from that species by long stamens and remarkable almost triangular terminal leaflets and hairy ovaries in combination with glabrous anthers. Because of the long stamens it was initially identified as *R. bertramii* G.Braun. However, the shape of the leaflets is very different from that species. The leaflets of the unknown blackberry are very gradually attenuated and have a broad cordate base. The primocane has only a few prickles and the inflorescence is often fully unarmed, or it has only a few straight or slightly curved reflexed pricklets. These features separate the unknown blackberry also from *R. opacus* Focke (Focke 1875). When during the mapping project the number of localities where the unknown blackberry was found increased, it became clear that the unknown blackberry is a separate taxon with a rather wide distribution.

MATERIAL AND METHODS

After our systematic field work to map occurrence of *Rubus* in the northern part of the Netherlands, herbarium material was examined to study to the taxonomy and the distribution of the *Rubus plicatus*-complex. All specimens of *R. bertramii*, *R. fruticosus* L., *R. opacus*, and *R. plicatus* that are present in the herbarium collections of L and HFN were examined. The specimens that were selected as possible belonging to unknown blackberry were investigated in detail.

RESULTS

It turned out that the basic features of the unknown blackberry are very consistent. Just like we initially misidentified plants belonging to the unknown blackberry in the field, specimens in the herbaria were also misidentified and were mainly inserted as *R. plicatus*, but sometimes as *R. bertramii*, *R. fruticosus*, or *R. opacus*.

The centre of the distribution area of the the unknown blackberry is in the Netherlands, in the Provinces of Friesland and Drenthe. However, the distribution area extends from the Dutch North Sea coast in the west to Hannover in Lower Saxonia, Germany. Therefore, the unknown blackberry will be described as a new species here.

TAXONOMIC TREATMENT

***Rubus paraplicatus* K. Meijer, nov. spec. — Fig. 1 & 2**

Series *Rubus*

Holotype: K. Meijer 625, Flevoland, Urkerbos, forest edge, 20.16.55, 08.08.1986, two sheets, HFN.

Rubus paraplicatus K. Meijer, spec. nov.

Primocane (Fig. 3) suberect, 3–7 mm diameter, glabrous, angular, with flat, furrowed or convex sides, glabrous and eglandular.

Prickles 0–6 (–15) per 5 cm, from a 2–5 mm broad base soon attenuated, straight or slightly curved, 4–6 mm long. Stipules linear-lanceolate, 9–16 mm long, with long fimbriate hairs and (0–)2–3 sessile glands. Petiole 7–11 cm long, glabrous to slightly hairy, with 2–7(–14) slightly curved prickles. Leaflets 5-foliolate, adaxially with a few appressed hairs, abaxially with some hairs on the veins, (0–)1–8 hairs per cm². Serrature from mediocre and almost simple with triangular teeth and hardly or shallowly periodic, to irregular sharp and deep, short periodic, with (almost) straight teeth. Petiolule of the lower leaflets 0–3 mm. Terminal leaflet ovate, sometimes slightly lobate, 89–144 mm long, width (54–)57–67(–84) % of its length, base cordate or rarely emarginate, gradually moderately acuminate. Length of the petiolule 27–32 % of the length of the leaflet.

Flowering branch angular, almost glabrous or with some appressed and also long whirling hairs, eglandular. Prickles lacking or 1 or 2 per 5 cm, straight or slightly curved, reflexed, up to 2–3(–4) mm long. Inflorescence (Fig. 4) racemose, usually simple, sometimes at the base a branch with 2 flowers. The lower inflorescence leaves mostly 5-foliolate. The upper inflorescence leaves abaxially somewhat soft hairy on the veins. Pedicels 4–40(–75) mm long, with appressed hairs, with 0–1(–3) pricklets. Sepals patent or loosely reflexed, greenish, white bordered. Petals obovate or broad elliptical, 11–14 mm long, white or pale pinkish. Stamens longer than the greenish styles. Anthers glabrous. Carpels and receptacle hairy to slightly hairy. Flowering June, beginning of July.

Identification — *Rubus paraplicatus* is part of the *R. plicatus* complex, but differs from *R. plicatus*, *R. bertramii*, and *R. opacus* by the ovate terminal leaflets with cordate base and gradually attenuated apex; the lower leaflets are sessile or very short stalked; the inflorescence is usually simple, a branch with two flowers is found only rarely at the base; prickles in the inflorescence are absent or very weak. The serrature of the leaves is rather divers, often rather regular with blunt triangular teeth, but sometimes irregular, sharp and deep, up to almost incised. Remarkable are the often 5-foliolate leaves in the inflorescence. The characteristic leaf shape, hairy receptacles and ovaries, and glabrous anthers easily distincts *Rubus paraplicatus* from related species such as *R. plicatus*, *R. bertramii*, and *R. opacus*, which have also stronger prickles. In addition, *R. plicatus* has shorter stamens and almost glabrous receptacles.

Ecology — Mainly in woods, bushes and wooded banks, roadsides, and willow shrubs on moist soils.

Distribution — The Netherlands (Fig. 5): Provinces of Friesland, Drenthe, Overijssel, Flevoland, and Gelderland; also in the dunes around The Hague and near Sprang-Capelle in Noord- Brabant; to the east to the German border. Germany: near Hannover in Lower Saxonia. The disjunction is most likely caused by unfamiliarity with the species.

Characteristic specimens

Netherlands

L — K. Meijer s.n., Noordwolde-Zuid, in bosrand langs Nieuweweg 32, 52.52.84N/6.08.78E, 19.09.2013, L.3955124; K. Meijer s.n., Noordwolde-Zuid, in bosrand langs Nieuweweg 32, 52.52.84N/6.08.78E, 19.09.2013, L.3955125; Van Soest 28348, begin Beekhuizerbosch. P6.14.23, 06.1927, L.3276090; Van Soest 13321, Boschjes van Zaanen, Alkemadelaan, Den Haag, N3.55.14, 25.06.1941, L.3275951 / 2; De Bruijn 53, 's-Gravenhage, 07.1857, L.3274318; Van Soest 54088, Doornspijk, Berkenweg, 27.22.51, 03.07.1972, L.3274278 / 79 / 80; Beyerinck, Ter Peilwijk & Reichgelt s.n., in hb. Kem &

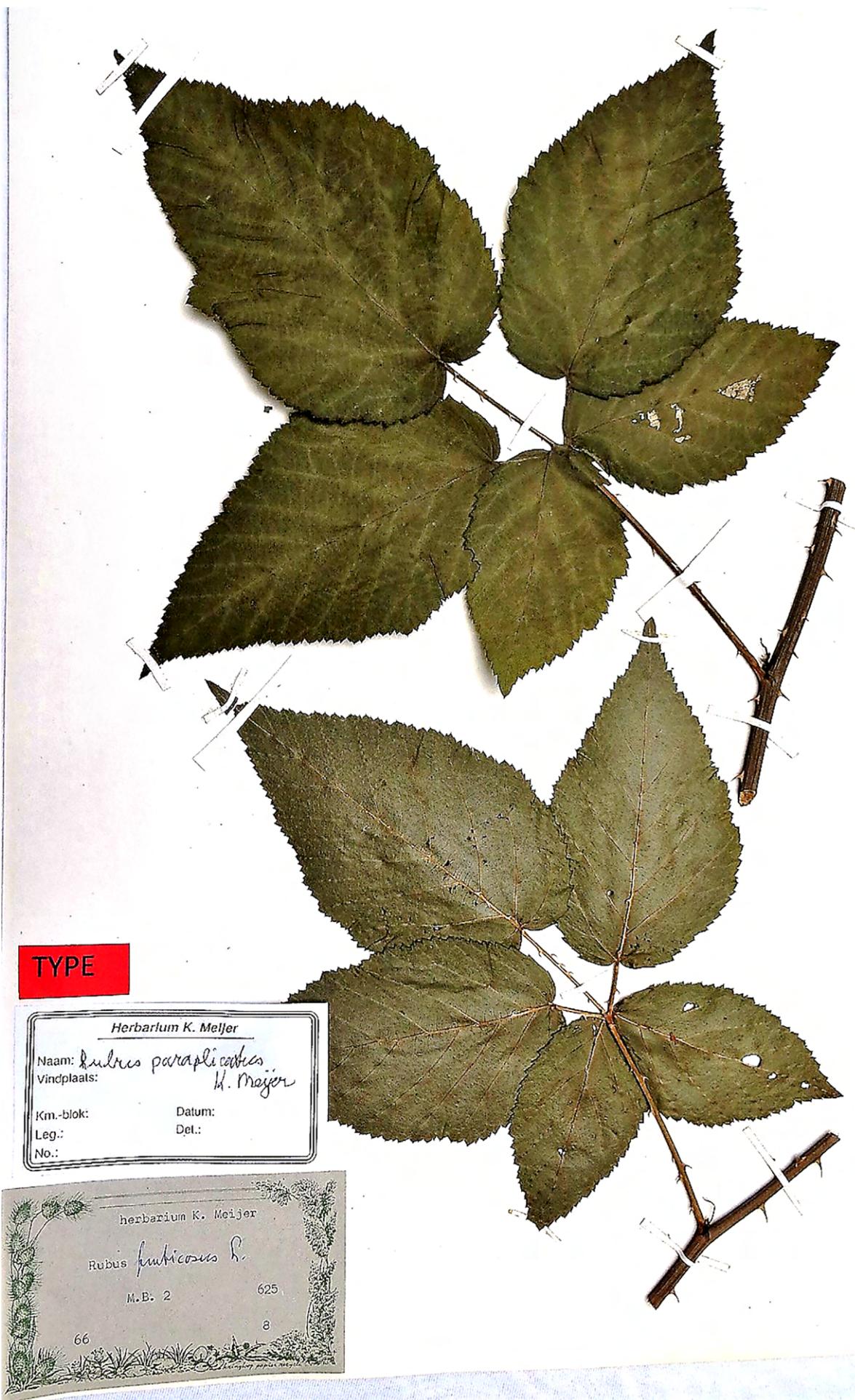


Fig. 1. *Rubus paraplicatus* K. Meijer, holotype (K. Meijer 625, HFN). Photo: K. Meijer.

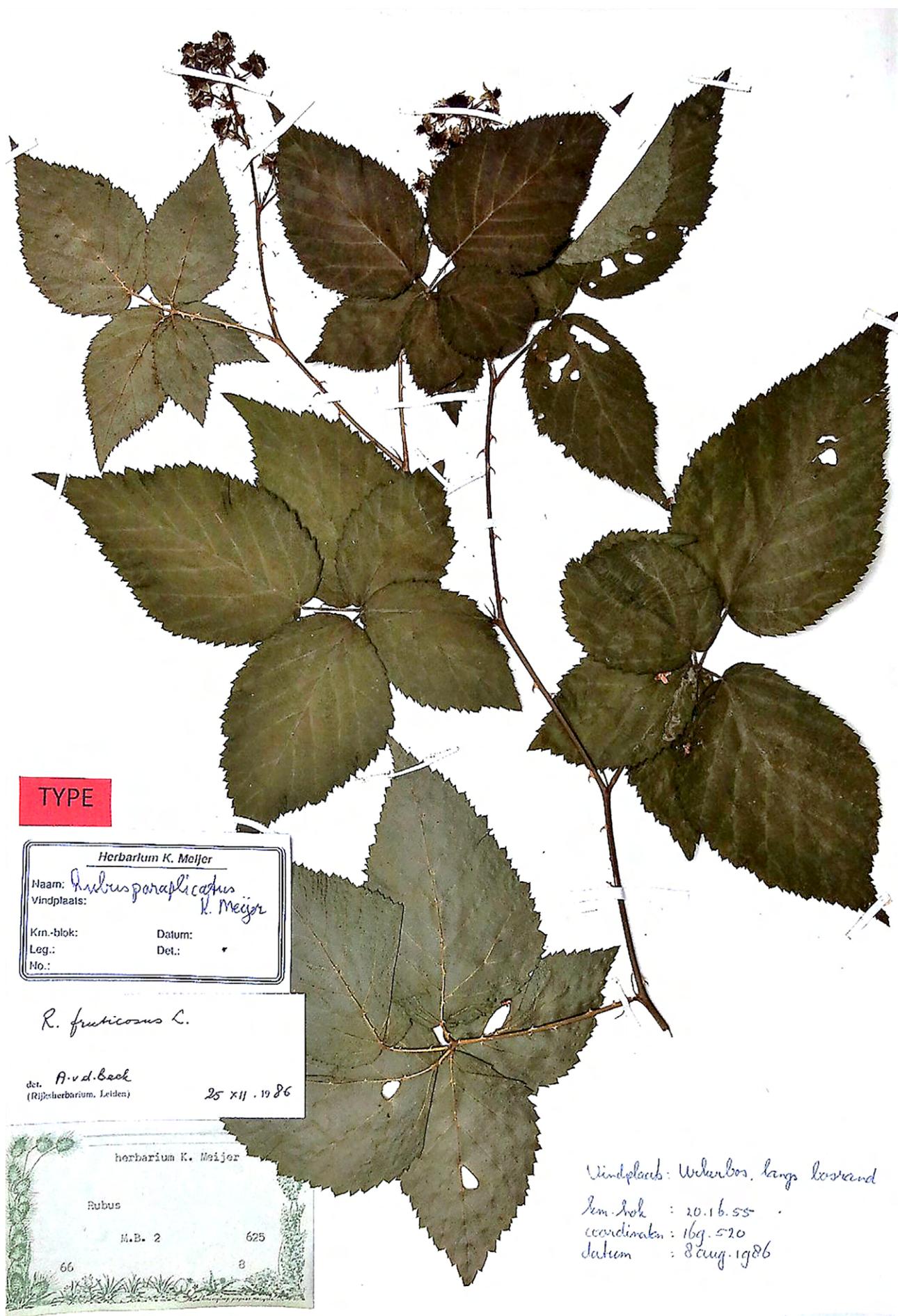


Fig. 2. *Rubus paraplicatus* K. Meijer, holotype (K. Meijer 625, HFN). Photo: K. Meijer.



Fig. 3. *Rubus paraplicatus* K. Meijer, holotype (K. Meijer 625, HFN), detail of a primocane. Photo: K. Meijer.



Fig. 4. *Rubus paraplicatus* K. Meijer, holotype (K. Meijer 625, HFN), detail of an inflorescence. Photo: K. Meijer.

Reichgelt 19026, M....bos bij Emmen, 17.08.1950, L.3276132; J.F. Neve 669-838, Harken-Makkinga, 26.06 and 23.09, sine anno, L.3274263/4; J.F. Neve R10 & R 72, Harken, oostkant reservaat It Fryske Gea, 23.07 and 22.09.1968, L.3274273/4; J. van der Veer 21, Hengelo, Tapuitstraat, braakliggend stuk langs spoorbaan, 1957, L.3276164/5/6; Van Soest 54859, Doornspijk, Courageweg, niet ver van het dorp, 03.07.1973, L.3276168/9; J.F. Neve 708-817, Oud-Appelscha, L.3274269/70; F.M. Muller 06470, zuidzijde

eendekooi Den Dulver, Capelle (N.B.), 13.08.1965, L.3275947/8; Van Soest 14480, Wassenaar, Vrijland, N3.46.33, 21.07.1944, L.3274283/4/5; W.W. Schipper s.n., Winschoten, laan naast Oudewerf, 29.06.1926, L.3276163; Beijerinck s.n., Vilsteren, 20.06.1952, L.3276147; Beijerinck s.n., Vilsteren, 20.06.1952, WAG.1200310/1; Beijerinck s.n., ten W. v. Vilsteren, 27.09.1951, WAG.1200322/3/4; Ter Pelkwick & Beijerinck s.n., De Hoge Lutte, 06.09.1951, WAG.1215771/2; Ter Pelkwick, Reichgelt & Beijerinck s.n., Lieftincksbroek

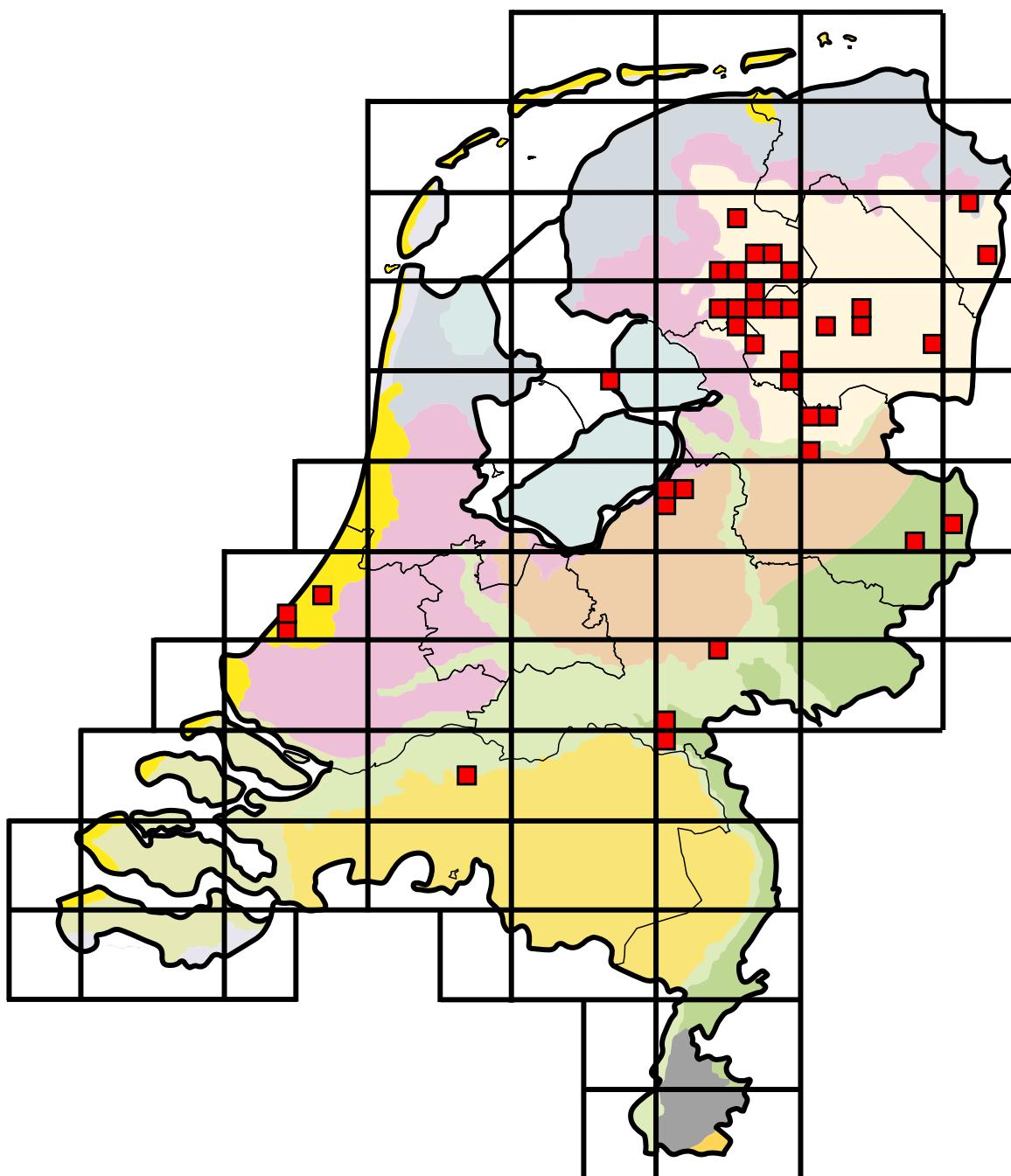


Fig. 5. Distribution of *Rubus paraplicatus* K.Meijer in the Netherlands. Map: R.-J. Bijlsma.

bij Weende, 24.07.1951, WAG.1215768/69/70; Kern & Reichgelt 6883, Nijmegen, op de Duckenburg, P6.61.43, 16.06.1948, L.3276041/2; Kern & Reichgelt 6881, Nijmegen, oprijlaan van de Duckenburg, P6.16.42, 30.07.1948, L.3276043/4/5; Kern & Reichgelt 19028, Nijmegen, Duckenburg, bij de vijver bij de Staddijk, 26.05.1948, L.3276152; Van Soest 22208, Wal Bovenweg, Nunspeet, 01.07.1949, L.3276078.

HFN — K. Meijer 3876, Beesterzwaag, Bovenveld, in wood along path, 11.25.53, 18.07.1993; K. Meijer 1389, Nieuwehorne, forest edge, 11.54.45, 18.06.1992; K. Meijer 3875, De Meenthe, in wood of *Quercus robur*, 16.16.41, 23.07.1994; K. Meijer 14, De Hoeve, Gem. Westellingwerf, Ratellaan, 16.25.13, 23.06.1982; K. Meijer 5500, Diever, forest edge, 16.28.53, 25.06.2005; K. Meijer 4435, Vledder, road shoulder, 16.27.22, 04.08. 2003; K. Meijer 2451, De Wijk, forest edge, along path, 21.18.51, 23.07.2001.

Germany

P — Kretzer, Baenitz Herbarium Europaeum 76, Hannover, Müllinger Wald, 10.07.1893, 'Rubus opacus f. umbrosa', P02521003; P04153523.

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Weihe KE, Nees von Esenbeck CG. 1822–27. Rubi Germanici. Die Deutschen Brombeersträuche. Schönian'sche Buchhandlung, Elberfeld.