

SHORT COMMUNICATION

Two new species of *Rubus* L. (Rosaceae L.) from the North Netherlands

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Key words

Rubus
Rubus horridifolius
Rubus frieslandicus

Abstract – In this article two new species are described: *Rubus horridifolius* K.Meijer & A.Beek and *R. frieslandicus* K.Meijer & A.Beek. Both species are from the northern part of the Netherlands, where they occur in the transition zone between the sandy regions in the east and the clayey polders in the west. This region is rich in species from the sections *Subidaei* (Focke) A.Beek and *Corylifolii* Lindl.

Samenvatting – In dit artikel worden twee nieuwe bramensoorten beschreven: *Rubus horridifolius* K.Meijer & A.Beek en *R. frieslandicus* K.Meijer & A.Beek. Beide soorten komen voor in de overgangszone van de zandgronden in het oosten van het land naar de kleigebieden in het westen ten noorden van de grote rivieren. Deze overgangszone is een vruchtbare bodem voor veel taxa uit de secties *Subidaei* (Focke) Asch. & Graebn. en *Corylifolii* Lindl.

Rubus horridifolius is gekarakteriseerd door vrij talrijke ongelijke stekels, scherp en diep periodisch gezaagde bladeren met groene bladonderzijden, brede topblaadjes en tot de top doorbladerde bloeiwijzen met zeer kort gesteelde bleke klieren. Kenmerkend voor *Rubus frieslandicus* zijn de onregelmatig behaarde (vrijwel) klierloze bladloten met verspreide stekels, aan de onderzijde groene bladeren met brede topblaadjes, een vrijwel onbestekelde bloeiwijze zonder duidelijk gesteelde klieren, brede witte, later tot roze verkleurende kroonbladen en kale helmhokken.

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INTRODUCTION

Many species of *Rubus* have been found in the Netherlands. An overview of these has been given in the Checklist of the Dutch Brambles (Beek et al. 2014). This list does not mean that research on *Rubus* has now been completed. On the contrary, it rather provides a basis for new research and encourages new investigations. Even when the list was published, it was clear that not all data had been elaborated. Sometimes, however, it is wise to make a survey of the *status questionis*, precisely in order to gain an overview of those areas which require special attention. Apparently, three fields of research require such attention: nomenclature (especially in older publications), taxonomy (especially of critical and often misunderstood clusters), and new taxa which

have been discovered by more intensive fieldwork. This article deals with the third topic: the description of two new species from a region at the borders of the main *Rubus* area in the Netherlands.

In the Netherlands, *Rubus* is mainly restricted to the eastern and southern Pleistocene parts of the country. Brambles do not thrive in the young polders below sea level in the western parts. Only two species are common in the western parts: *Rubus caesius* L. (1753: 493) which prefers young soils, and *R. armeniacus* Focke (1874: 183), which is a pioneer plant in places where sand is mixed with the wet clay and peat areas, such as on railway and motorway slopes, industrial areas or new residential quarters.

Field work in the zone where the Pleistocene sandy parts and the polder regions of the Netherlands meet brought new discoveries to light. The transition zone between the sandy regions in the east

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and the clayey polders in the west, north of the River Rhine, is rich in local and regional *Rubus* biotypes of the sections *Subidaei* (Focke) Asch. & Graebn. (1905: 895) and *Corylifolii* Lindl. (1835: 93). Although many of these have very small distribution ranges, several can be classified as regional species. Some of them incline to a more southern distribution, stretching to the West Veluwe, Province of Gelderland, and the Province of Utrecht, e.g. *R. aphidifer* A.Beek & K.Meijer (1990: 99), *R. passionis* A.Beek & K.Meijer (1990: 99) and *R. spiculus* K.Meijer (2000: 221), while *R. magnisepalus* Meijer (2000: 214), *R. surrectus* K.Meijer (2000: 219) and *R. coccinatus* K.Meijer (2000: 212) are restricted to the northern part of the country in the Provinces of Friesland, Groningen, Drenthe, and in Northwest Overijssel. In this article we will describe two more regional species from this area, one restricted to the northern part of the country and one extending southwestwards to the central part of the country.

1. *Rubus horridifolius* K.Meijer & A.Beek, nov. spec. — Fig. 1, 2, 3, 4, 5, 6 & 7.

This species belongs to *Rubus* series *Corylifolii* (Lindl.) Focke (1877: 387).

Holotype: K. Meijer 3344, Friesland, Kleine Geest, wegrand in boswal, 6.53.21, 04.08.2004, HFN. — Fig. 5, 6 & 7.

Primocane (Fig. 1) prostrate, diameter 5–9 mm, sharply angular with flat or somewhat concave sides, glabrous or with a few simple hairs, with 0–20 stipitate pale glands which are easily broken off, glandular acicles, or little pricklets per 5 cm. Prickles 15–65 per internode, unequal, from a 2–3 mm large base rapidly attenuated, compressed or subulate, straight or slightly curved, the longest 3–7 mm. Stipules lineate to ovate, sometimes leafy (not membranaceous) with a dentate margin. Petiole 5–10 cm long, longer than the basal leaflets, slightly hairy and glandular with unequal prickles, the larger ones 10–30, declining or curved, ± subulate. Leaves (Fig. 2 & 3) pedate 3-5-nate, adaxially almost glabrous, abaxially slightly to sensibly pilose. Margins profound, sharp and irregular periodically serrated with straight or recurved teeth. Terminal leaflet 67–141 mm long, large, ovate or ± elliptical to slightly obovate, or often almost circular, with a ± rounded, emarginated or cordate base, gradually or more



Fig. 2. Primocane leaf of *Rubus horridifolius* K.Meijer & A.Beek. Plant growing along the road 'Paradyske' near Kollum, Province of Friesland, 26 July, 2012. Photo: Karst Meijer.



Fig. 3. Primocane leaf of *Rubus horridifolius* K.Meijer & A.Beek. Plant growing along the road 'Paradyske' near Kollum, Province of Friesland, 26 July, 2012. Photo: Karst Meijer.



Fig. 1. Primocane of *Rubus horridifolius* K.Meijer & A.Beek. Plant growing along the road 'Paradyske' near Kollum, Province of Friesland, 26 July, 2012. Photo: Karst Meijer.



Fig. 4. Inflorescence of *Rubus horridifolius* K.Meijer & A.Beek. Plant growing along the road 'Paradyske' near Kollum, Province of Friesland, 26 July, 2012. Photo: Karst Meijer.



Fig. 5. *Rubus horridifolius* K. Meijer & A. Beek: K. Meijer 3344, holotype (HFN). Photo: Karst Meijer.



Fig. 6. *Rubus horridifolius* K.Meijer & A.Beek: K. Meijer 3344, holotype (HFN). Photo: Karst Meijer.



Fig. 7. *Rubus horridifolius* K.Meijer & A.Beek: K. Meijer 3344, holotype (HFN). Photo: Karst Meijer.

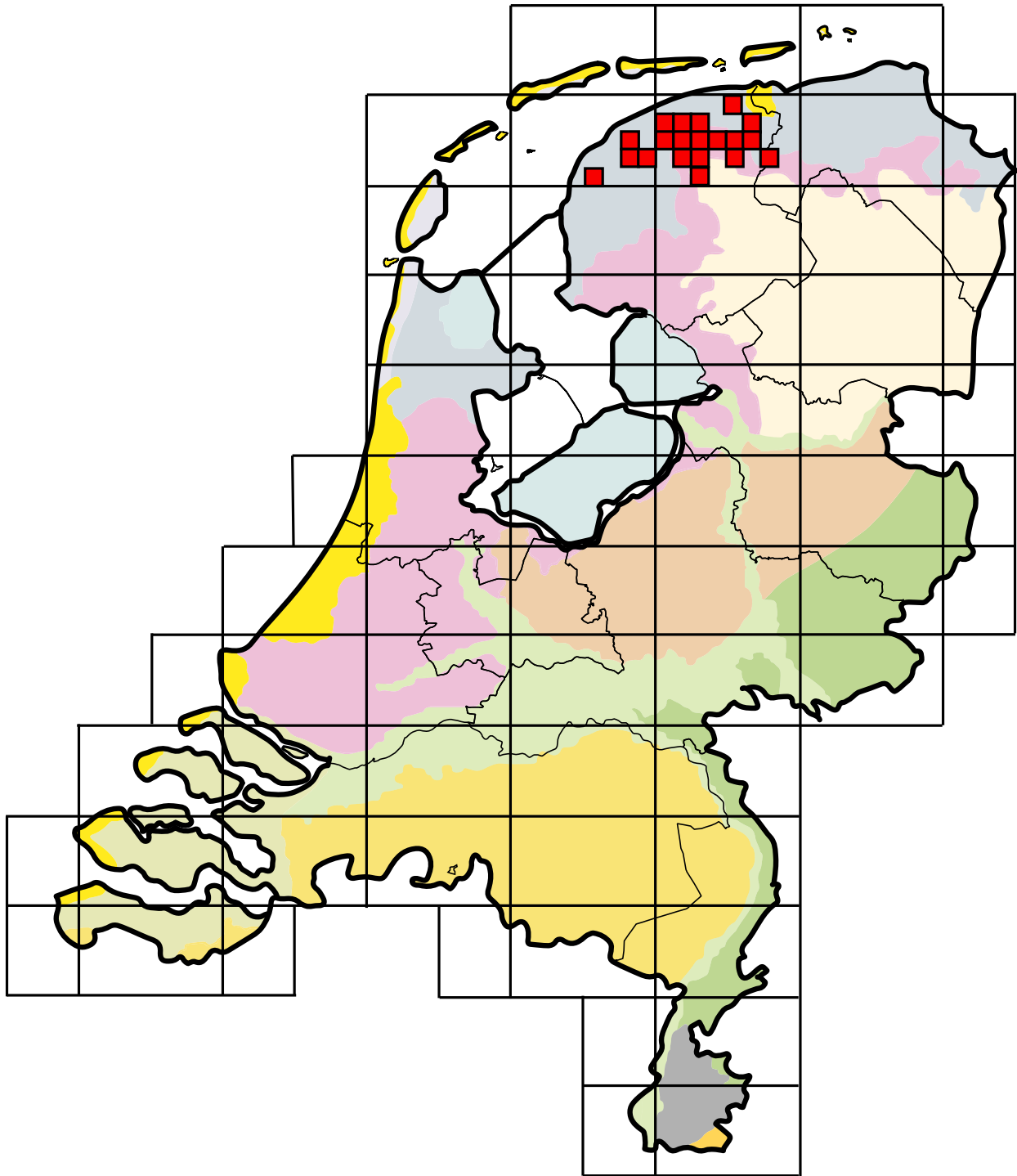


Fig. 8. Distribution of *Rubus horridifolius* K. Meijer & A. Beek. Map: Rienk-Jan Bijlsma.

often rather quickly (moderately) long acuminate, sometimes lobate; width 68–90(–105)% of its length. Length of the petiole (18–)23–35(–41)% of the length of the leaflet.

Flowering branch angular, slightly hairy, with 0–50 weak, easily broken, short stipitate pale glands or glandular acicles. Larger prickles 4–16 per internode, from a 1–4 mm large base declining, straight or slightly curved, 1–7 mm long. Inflorescence (Fig. 4) up to the apex with large leaves, with a short tip and below this usually 2–4 usually short branches which are inconspicuous due to the large leaves, with short distant hairs and very short

stalked, pale glands and few to rather numerous acicles or subulate prickles. Branches erect, divided under or above the middle, the longest ones with 2–6 flowers. Pedicels thin, 4–32 mm long, with 0–100 very tender almost sessile glands, with 0–12 prickles. Sepals patent, grey tomentose, not or scarcely armed. Petals ovate to almost circular, 8–14 mm long, slightly pinkish. Stamens somewhat shorter than or as long as the greenish styles. Anthers glabrous. Carpels and receptacle glabrous or hairy. Flowering end of June, July.

Ecology — Disturbed places in woods, bushes, and wooded banks on moist soils.

Distribution — A regional species occurring in the northern part of the Netherlands, especially in the Province of Friesland in the region between Franeker, Drachten, and Buitenpost (Fig. 8).

Identification — *Rubus horridifolius* is characterized by its large, ovate or circular, pilose leaves with coarse serrature, and the very short stalked glands in the inflorescence. It differs from *R. horridus* Schultz (1819: 30) by having weaker prickles, pale glands, a larger, usually more abruptly attenuated, terminal leaflet and not or scarcely armed sepals; it also lacks the very sharp serrature of *R. horridus*. *Rubus luticola* A.Beek (2014: 102) has much longer stalked glands. *Rubus dumetorum* Weihe (1824: 153) can be similar, but is less fertile and has thinner leaves.

Discussion — *Rubus horridifolius*, like *R. horridus*, has on the one hand characteristics of the series *Hystricopses* H.E.Weber (1981: 187) because of its glandular acicles and often numerous glands. On the other hand, however, it lacks the long stipitate glands and the many transitions of glands and prickles. The plants of this group also lack the solidity of the series *Viatici* A.Beek (2014: 93) and are more similar to *R. caesius* than other members of the section *Corylifolii* Lindl. Nevertheless, the plants form characteristic entities and these are well distinguished as in the case of *R. horridifolius*. The distribution area of this taxon is rather small, with a diameter of about 60 km, but within its distribution area it is very common so that it is advisable to recognise it as a separate species and to provide it with a name. Recently we found the species on a wider scale to the north and to the west.

Representative herbarium specimens

The coordinates are Dutch kilometer grid cells (1 × 1 km²) using the 'atlas code' notation (e.g., 6.22.54). The first digit(s) of this code denotes the map sheet number (see, e.g., in van der Have & Huigen 2003), the second pair of digits the atlas block (5 × 5 km²), and the last pair of digits the grid cell. The herbarium acronym HFN denotes the Herbarium Frisicum at Wolvega (Province of Friesland, the Netherlands), see Thiers (2019+).

Netherlands

Province of Friesland

HFN — *K. Meijer 1745*, Marrum, marshes, 6.21.23, 29.06.1995; *K. Meijer 1987*, Oudkerk, edge of bush, 6.32.45, 24.06.1997; *K. Meijer 1710*, Rijperkerk, edge along the Westerdijk, 6.42.35, 10.08.1994; *K. Meijer 3344*, Kleine Geest, wooded bank, 6.53.21, 04.08.1994 (holotype); *K. Meijer 3600*, Veenwoudsterwal, edge of alder bush, 6.43.44, 26.07.2012; *H. Jager 3720*, Kleine Wielen, wood edge, 6.42.44, 30.07.1994; *H. Jager 3723*, Ottema-Wiersma Reserve, willow marsh bush, 6.43.13, 11.06.1993; *H. Jager 3718*, Birdaard, public garden in the village, 6.32.13, 25.06.1995; *H. Jager 3721*, Birdaard, road shoulder, 6.22.54, 29.06.1995; *H. Jager 3720*, Kleine Wielen, wood edge, 6.42.44, 30.07.1994.

2. *Rubus frieslandicus* K.Meijer & A.Beek, nov. spec. — Fig. 9, 10, 11 & 12.

This species belongs to *Rubus* series *Viatici* A.Beek.

Holotype: *K. Meijer 3343*, Friesland, Suawoude, wegrand rand Wijde Ee, 6.53.33, 4.08.2004, HFN. — Fig. 9, 10 & 11.

Primocane low arching and prostrate, diameter (3–)4–7 mm, bluntly angular with convex sides to sharply angular with concave sides, partially glabrous but sometimes with long, often stellate hairs, eglandular or sometimes with a few sessile glands. Prickles 5–10(–16) per internode, unequal, the largest ones from a (2–)3–5 mm large base patent or with curved tip, compressed, (2–)4–5 mm long. Stipules lanceolate, 9–15 mm long, fimbriate and with scattered sessile glands. Petiole 4–7(–10) cm, usually longer than the external leaflets, loosely hairy, with some sessile glands and (2–)5–7(–12) curved prickles. Leaflets 5-nate or sometimes partially 3-nate, adaxially pilose, abaxially thinly and short to long hairy (mainly on the veins). Margins not periodically to irregularly periodically serrated, with fine to moderately profound, narrow straight teeth, sometimes up to 2–4 mm deeply incised. Terminal leaflet 73–86 mm long, ovate to almost circular, with a rounded or emarginated base, rather abruptly attenuated; width 80–85% of its length. Length of the petiolule (21–)30–38% of the length of the leaflet.

Flowering branch angular, almost glabrous or with scattered to moderately numerous ± appressed hairs, eglandular or with a few short stalked glands. Prickles 1–7 per internode, from a 2–5 mm large base patent or slightly declining, partially with a curved tip, hardly compressed, 2–3 mm long. Inflorescence (Fig. 12) up to 30 cm long, cylindrical, with scattered weak prickles and a few almost sessile glands, with leaves at the base only, or sometimes also with more leaves which are shorter than the branches. Upper leaves long, soft and hairy underneath, sometimes somewhat grayish. Branches erect, usually divided under the middle or fasciculate, the longest with 5–11 flowers. Pedicels varying in length, most of them long, 8–31(–40) mm, tomentose, short and hairy, eglandular or with some sessile glands and 0–6 pricklets. Sepals recurved to patent, with a long tip, grayish tomentose, short and hairy, eglandular or with a few sessile glands. Petals large (ob-)ovate to elliptic, 12–15 mm long, pale pinkish, often becoming white. Stamens about as long as the incarnate or reddish styles. Anthers and carpels glabrous. Receptacle glabrous or sometimes with a few short hairs. Flowering beginning June to July.

Ecology — Mainly in wetlands, especially in willow shrubs; also at roadsides and wooded banks.

Distribution — Rather common in the northern and eastern parts of the Province of Friesland. Outside this region also on some estates in the Province of Noord-Holland near Hilversum (Fig. 13). This distribution pattern may be due to introduction of plants from Friesland to these estates, but it is more probable that it is similar to the distribution of other brambles such as *Rubus passionis* and *R. aphidifer*; these are also found on localities in between. Maybe *R. frieslandicus* might also be found there or it may have been extinct because the transition zone is very narrow at the northern Veluwe; it was frequently inundated in the past and partially lost due to expansion of the former Zuiderzee before this was enclosed by the Afsluitdijk.

Identification — *Rubus frieslandicus* is clearly a representative of the series *Viatici*, because of the strong primocanes, the abaxially greenish leaves, the (almost) absence of stipitate glands, and the grey sepals. Within this series, it is very well characterized by its glabrous anthers, large pale flowers, almost unarmed inflorescence, and its lack of clearly stalked glands. Consequently, it cannot be easily confused with other species.



Fig. 9. *Rubus frieslandicus* K. Meijer & A. Beek: K. Meijer 3343, holotype (HFN). Photo: Karst Meijer.



Fig. 10. *Rubus frieslandicus* K. Meijer & A. Beek: K. Meijer 3343, holotype (HFN). Photo: Karst Meijer.



Fig. 11. *Rubus frieslandicus* K.Meijer & A.Beek: K. Meijer 3343, holotype (HFN). Photo: Karst Meijer.



Fig. 12. Detail of an inflorescence of *Rubus frieslandicus* K.Meijer & A.Beek: K. Meijer 3541 (HFN). Photo: Karst Meijer.

Representative herbarium specimens

The herbarium acronym HFN denotes the Herbarium Friscum and the acronym L the herbarium of Naturalis Biodiversity Center at Leiden, see [Thiers \(2019+\)](#); 'Herb. R. Haveman' refers to Rense Haveman's private herbarium.

Netherlands

Province of Friesland

HFN — K. Meijer 3343, Suawoude, road shoulder, along the Wijde Ee, 6.53.33, 04.08.2004 (holotype); K. Meijer 1962, Bergum, road shoulder, 6.54.33, 03.07.1996; K. Meijer 1985, Broeksterwoude, road shoulder, 6.33.45, 24.06.1997; K. Meijer 1744, Marrum, marshes, 6.21.23, 29.06.1995; K. Meijer 1747, Giekerk, road shoulder, 6.42.14, 08.1995; K. Meijer 453, Tietjerk, along railway, 6.43.51, 16.07.1985; K. Meijer 1986, Damwoude, road shoulder, 6.34.22, 24.06.1997; K. Meijer 673, Eestrum, hedge in village, 6.45.51, 21.07.1987; K. Meijer 3537 Oenkerk, Staniastate, wood edge, 21.07.1993; K. Meijer 3536, Oostermeer, Bildtweg, ditch wall, 6.55.52, 04.08.1993; K. Meijer 3535, Suawoude, wall of sand quarry under alders, 6.52.45, 24.06.1995; K. Meijer 3534, Oenkerk, Saanjesreed, wall of ditch along road, 6.42.14, 29.06.1995; K. Meijer 3538, Giekerk, wooded bank along the skating rink, 6.42.14, 14.06.1995; K. Meijer 3539, Ottema-Wiersmareservaat, willow marsh bush, 6.43.13, 29.06.1995; K. Meijer 3541, Rinsumageest, in Pinus plantation, 6.23.54, 05.07.1995; K. Meijer 3542, Kollum, young willow bush, 6.26.51, 17.06.1995; K. Meijer 3543, Broeksterwoude, De Valom, Molenweg, wall of ditch along road, 6.34.41, 17.07.1993; K. Meijer 676, Oostermeer, complex of wooded banks, 6.54.45, 21.07.1987; K. Meijer 453, Tietjerk, along the railway, 6.43.51, 16.07.1985; K. Meijer 674, Zwaagwesteinde, wooded bank, 6.34.52, 21.07.1987.

L — A. S. Troelstra 01-R051, Damwoude, wooded bank south of Damwoude, 01.08.2001.

Herb. R. Haveman — R. Haveman 813-1, Heeg, Princehof, marsh wood with birches, 08.1992.

Province of Noord-Holland

L — A. S. Troelstra 90-R060, Corverbos near Hilversum, in deciduous wood, 31.18.44, 22.06.2011; A. S. Troelstra 97-R041, Landgoed Boekensteijn, 's Graveland, 25.58.23, 09.07.1997.

CONCLUSION

Due to the research set in motion by the publication of the Checklist and distribution data of Dutch brambles ([van de Beek et al. 2014](#)), several new *Rubus* taxa have been discovered. In this article two new species have been described. They occur in the transition zone in the Netherlands between the higher part of the country, with a high diversity and abundance of *Rubus* species, and the low polders, where *Rubus* is less diverse and less abundant and where mainly *R. caesius* is common. It is very likely that further investigations in this transition zone, not only north but also south of the main rivers in the Dutch Delta, will lead to the discovery of new *Rubus* taxa.

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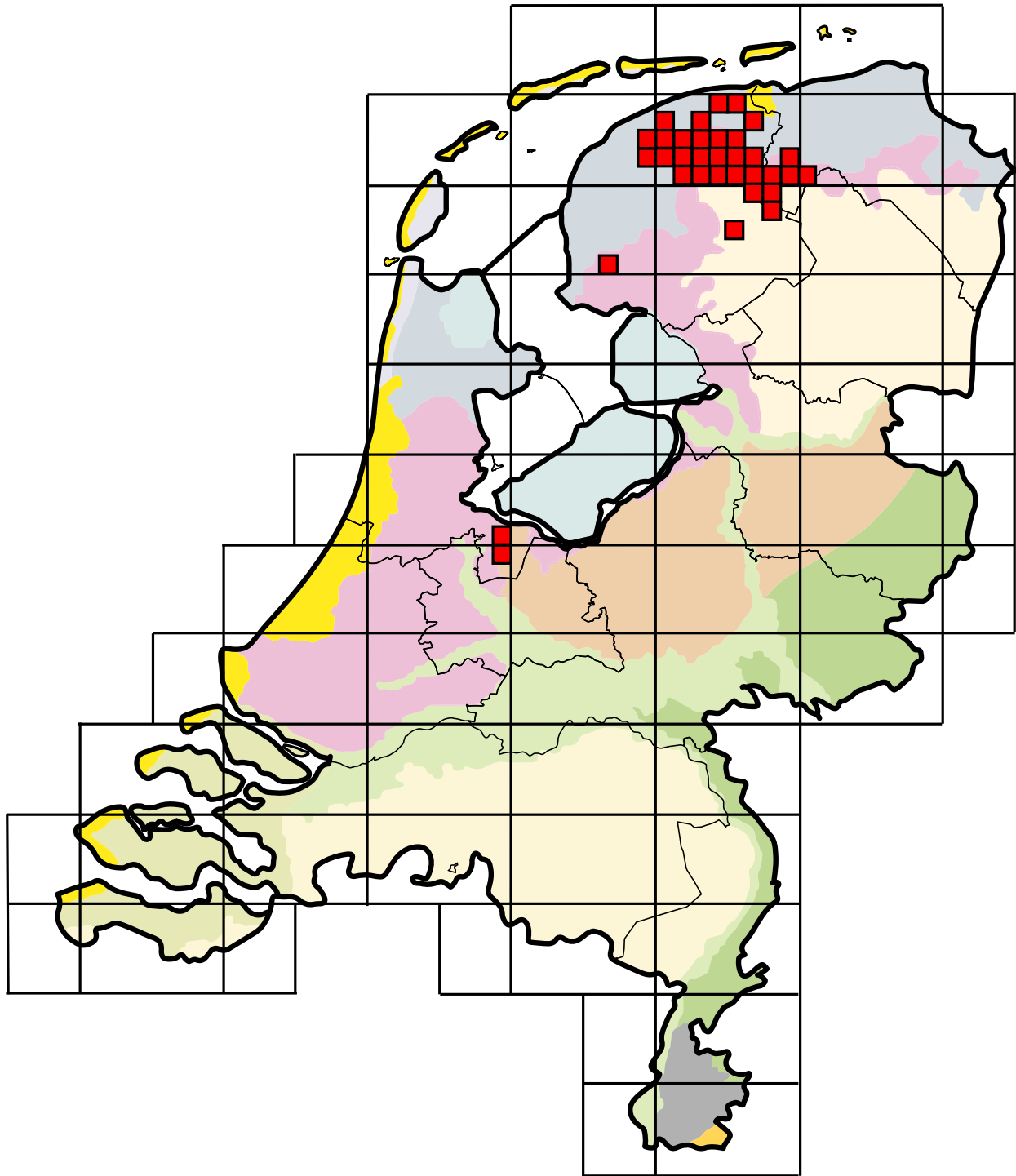


Fig. 13. Distribution of *Rubus frieslandicus* K.Meijer & A.Beek. Map: Rienk-Jan Bijlsma.

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