

Important Plant Areas

**Botanical biodiversity hotspots
in The Netherlands**

**Plants
Bryophytes
Macrofungi
Lichens**

**L.B. Sparrius
D.D. van der Hak
(eds)**

FLORON



Important Plant Areas

Botanical biodiversity hotspots in The Netherlands

L.B. Sparrius & D.D. van der Hak (eds)

FLORON Plant Conservation Netherlands, 2019

Colofon

Published by FLORON Plant Conservation Netherlands

Citation

L.B. Sparrius, D.D. van der Hak, R. Chrispijn, S. van der Meer, A. van der Pluijm, H.J. Timmerman & H.R. Zielman. 2019. Important Plant Areas. Botanical biodiversity hotspots in the Netherlands. Plants, bryophytes, macrofungi and lichens. FLORON report 2017.044. FLORON Plant Conservation Netherlands, Nijmegen. 10.5281/zenodo.3667631

An online interactive version of this document in Dutch can be found on:

<https://www.verspreidingsatlas.nl/biodiversiteit/hotspots>

Species experts

plants: S. van der Meer

bryophytes: H.R. Zielman & A. van der Pluijm

macrofungi: R. Chrispijn

lichens: H. Timmerman

Acknowledgements

We received valuable feedback from A. Aptroot, P. Bakker, R. Beringen, H. van der Kolk, B. Maes, B. Odé, W. & T. van Riemsdijk & K. van der Vaart. This work has not been possible without the help of many thousands of volunteers and professionals collecting biodiversity data in the field.



FLORON - Plant Conservation Netherlands was founded in 1988 and is the leading organization in the Netherlands monitoring and protecting of wild plants with amateur and professional botanists.

BLWG - Dutch Bryological and Lichenological Society was founded in 1943 and unites amateur and professional lichenologists and bryologists.

NMV - The Dutch Mycological Society was founded in 1908 with the aim to promote mycology. 900 national members contribute to the monitoring and protection of fungi.



We thank WWF Netherlands and Prins Bernhard Cultuurfonds for supporting this project.

Contents

Preface	4
Introductory part	5
Introduction	
Methods	
Results	
Important Plant Areas	9
141 sites with botanical biodiversity hotspots	
Index	158
References	160

Preface

Botanical diversity is under high pressure in densely populated countries and protected areas play a very important role in species conservation. In the Netherlands, borders of most nature reserves, including Natura 2000 sites, have been drawn on the map before the 1990s.

In the 1990s, long-term projects to collect observation data of botanical diversity had just started to intensify among a community of volunteers united in FLORON Plant Conservation Netherlands, Dutch Mycological Society and the Bryological and Lichenological Society. Observation databases increased to around 40 million records in 2019.

Defining Important Plant Areas is a proven method encouraged by the Global Strategy for Plant Conservation of the Convention for Biological Diversity and by IUCN's Key Biodiversity Areas program.

This report gives an overview of botanical biodiversity hotspots, regardless of their current nature conservation status, also providing insights of plant diversity of urban and rural areas in The Netherlands.

I hope this report will enhance the conservation of plants in the Netherlands. It provides a strong basis for another look at plant conservation.

Rob van Westrienen

Director of FLORON

Introduction

The Important Plant Area (IPA) programme was initiated by Plantlife International and is intended to inform and underpin new and existing conservation programmes and legislation. IPAs may act as a benchmark for determining whether the strongest protection is being afforded to the most important sites for plants.

The Netherlands has a nature conservation framework for sites on land based on three levels of protection. All sites belong to the National Nature Network (NNN), which aims to connect all large reserves with each other. Within the NNN, Natura 2000 sites have the most strict level of protection, including legislation on the limitation of external factors such as nitrogen deposition. In addition, some sites belong to the National Parks program, which focuses on nature-oriented tourism and preservation of the landscape.

In particular England, Eastern European and North-African countries have already adopted the Important Plants Areas (IPA) programme. IPAs can be defined in several ways, by using data on threatened species, botanical richness of habitats, and/or threatened habitats. In many IPA studies threatened habitats are the main criterion whether or not a site is listed as an IPA. The Netherlands has a very long tradition of intensive recording observations of flora and fauna. Over 35 million observations of plants and fungi are now available in the National Database Flora and Fauna (NDFF). This is the first IPA solely based on the presence of threatened species and indicator species at site level.

Methods

Important Plant Areas

The Important Plant Areas (IPA) framework defines 3 criteria to determine IPA sites, (A): Globally or Regionally threatened species, (B): Exceptional botanical richness and (C): Threatened habitats. The exact criteria and their descriptions can be found in Darbyshire et al. (2017). As globally threatened species are lacking in the Netherlands, biodiversity hotspots were based on criterion B. This criterion is assessed mainly by determining the number of endangered species present in the area, and the richness of indicator species for a wide range of habitats. Criterion C is omitted to avoid overlaps with indicator species for habitats in criterion B.

Data

To locate biodiversity hotspots, occurrence data in the NDFF (National Database Flora and Fauna) were used for species of vascular plants, bryophytes, lichens and mushrooms. These data were gathered by experts and citizen scientists of FLORON (Plant Conservation Netherlands), BLWG (Dutch Bryological and Lichenological Society) and NMV (Dutch Mycological Society). Observations were validated automatically if matching locations of historical data exist in the database. Observations that did not pass this test were investigated by experts who determined the likelihood of the species occurring at the observed location, either approving or discarding the observation. Only wild occurrences were included. Data collected between 1990 and 2018 were used to avoid spatial observation bias: in this period all relevant sites have been sufficiently surveyed.

Red Lists

Threatened species are defined as taxa listed in the Red Lists of plants (Sparrius et al. 2012), bryophytes (Siebel et al. 2013), lichens (Aptroot et al. 2012) and fungi (Arnolds & Veerkamp 2008). Only rare and declining taxa were included, i.e. Red List categories Critically Endangered, Endangered, Vulnerable and Near Threatened.

Criteria

For criterion B(i), the IPA framework allows for the selection of sites dependent on a high number of species per habitat or vegetation type, so-called indicator species. To accommodate this, species were assigned to one or more ecological groups based on publications in which all native taxa for a species group had been assigned to one single habitat type (Arnolds & van der Maarel, 1979; Arnolds & van den Berg, 2013; van Herk et al., 2018; Siebel, 1993). These different categories of habitats are shown in Table 1.

For criterion B(ii), the IPA framework allows for the selection of sites by the presence of species of high conservation importance (Darbyshire et al., 2017). For this purpose, the national Red Lists for each investigated group were used.

For criterion B(iii), the IPA framework allows for the selection of sites by the presence of socially, economically or culturally valuable species (Darbyshire et al., 2017).

For vascular plants, 5 groups of valuable species were identified: Indicator species for ancient forests (Bremer, 2018), arable weeds (Bakker & van der Berg, 2000), chasmophytic plants (Sparrius et al., 2015), woodland understory species (Maes, 2006) and stinzen* forests

(Bakker & Boeve, 1985; typical spring flower communities found in parkland surrounding 17th century manor houses). For lichens, sites on historical buildings and cemeteries were selected. For mushrooms, sites with the highest number of Red Listed species on cemeteries were selected.

The number of habitats differs between species groups. This has only limited effect on the outcome as longer lists caused more overlap between habitats.

A summary of all categories is listed in Table 1.

Defining hotspots

The Netherlands was divided into 34.000 1 km grid cells. For each grid cell was calculated how many species for each category (indicator species, red lists and valuable species) had been found in that grid cell. For specific sites (historical buildings and cemeteries) the total number of Red List species in each grid cell containing a historical building or cemetery was determined. For stinzen forests experts were consulted to include well-managed and historically relevant sites.

For each category in criteria B(i) and B(iii), 100 grid cells with the highest number of species were selected. For Red List categories B(ii), the 250 grid cells were selected. Then, the single best grid cell for each group was selected, along with any of the best cells connected to this cell. Further iterations were performed until 5 sites had been identified for criteria B(i) and B(ii), or 15 sites for criterion B(iii). The analysis was done using an R-script (van der Hak, 2018). Experts were consulted to determine the boundaries of the sites.

Results

For the four species groups together, plants, bryophytes, mushrooms and lichens, 196 sites have been identified, which partly overlap between species groups. These sites have been merged into 141 Important Plants Areas (Fig. 1).

Descriptions of the IPAs contain the following sections:

1. Map showing the site delimitation and location within the Netherlands.
2. A list of qualifying groups of indicator species for habitats in B(i), Red List species B(ii), and/or socially, economically or culturally valuable species B(iii), together with a sample of a maximum of ten species.
3. References to publications describing the biodiversity and/or management in this area.

Discussion

Effective protection

Of the 141 IPAs, 77 (55%) fall within the Natura 2000 network, which provides the best protection for plants. 34 sites (24%) are in protected areas outside Natura 2000. 30 sites (21%) are not within a protected area. The Netherlands therefore largely meets target 5 of the Global Strategy for Plant Conservation (Convention on Biological Diversity, 2011), although ecological conditions are not always favorable for all plant species, especially regarding nitrogen deposition and effects of climate change. Sites that are not within protected areas, are usually urban areas, cultural heritage sites or infrastructural objects without specific nature management targets. Here, species conservation is at risk.

Rare habitat types

Although species diversity criteria (B) provide the flexibility to select habitats with rather low maximum numbers of species, such as heathlands and forests, some rare habitat types were fully covered in the IPAs. However, they are covered in the Natura 2000 network. Rare habitat types with relatively low numbers of species in all four groups include sea grass fields, *Nardus* grasslands and calaminarian grasslands, most of which are covered in the Natura 2000 network.

Table 1. Important Plant Area categories

B(i) Indicator species for habitats. Best 5 sites selected.

Plants

- Ancient forests understory plants
- Vascular plants of coastal dunes and salt marshes
- Vascular plants of dry grasslands
- Vascular plants of forest margins, scrub and felled areas
- Vascular plants of fresh water and river banks
- Vascular plants of heathlands, rich fens and mires
- Vascular plants of nutrient-rich grasslands
- Vascular plants of nutrient-rich pioneer habitats

Bryophytes

- Bryophytes of acidic peat bogs
- Bryophytes of bare tilled land
- Bryophytes of damp soil
- Bryophytes of dry nutrient poor grasslands
- Bryophytes of heaths and forested heaths
- Bryophytes of marshland and wet grasslands
- Bryophytes of nutrient poor forests
- Bryophytes of nutrient rich forests
- Bryophytes on rocky shores
- Pioneer bryophytes on acidic rock

- Pioneer bryophytes on calcareous rock
- Pioneer bryophytes on trees

Mushrooms

- Hygrocybe* grasslands
- Mushrooms of coastal dunes and salt marshes
- Mushrooms of coniferous forests
- Mushrooms of deciduous and mixed forests
- Mushrooms of farmland, parks, cities and roadsides
- Mushrooms of fens, marshes and river banks
- Mushrooms of heaths and inland dunes
- Mushrooms of meadows and grasslands
- Mushrooms of scrub and coppices
- Mushrooms of swamp woodland
- Mushrooms of wooded elements in mosaic landscape

Lichens

- Forest lichens
- Lichens in coastal dunes
- Lichens in heaths and inland dunes
- Lichens on rock
- Lichens on wayside trees

B(ii) Red List species. Best 15 sites selected.

- | | |
|----------------------------|-----------------------|
| Red Listed vascular plants | Red Listed macrofungi |
| Red Listed bryophytes | Red Listed lichens |

B(iii) Socially, economically or culturally valuable species. Best 5 sites selected.

- | | |
|--|--|
| Arable weeds | Cemeteries (Red Listed mushrooms) |
| Chasmophytic plants (stone walls) | Historical buildings and cemeteries (Red Listed lichens) |
| Old forests with high native woody plant diversity | |
| Stinzen forests | |

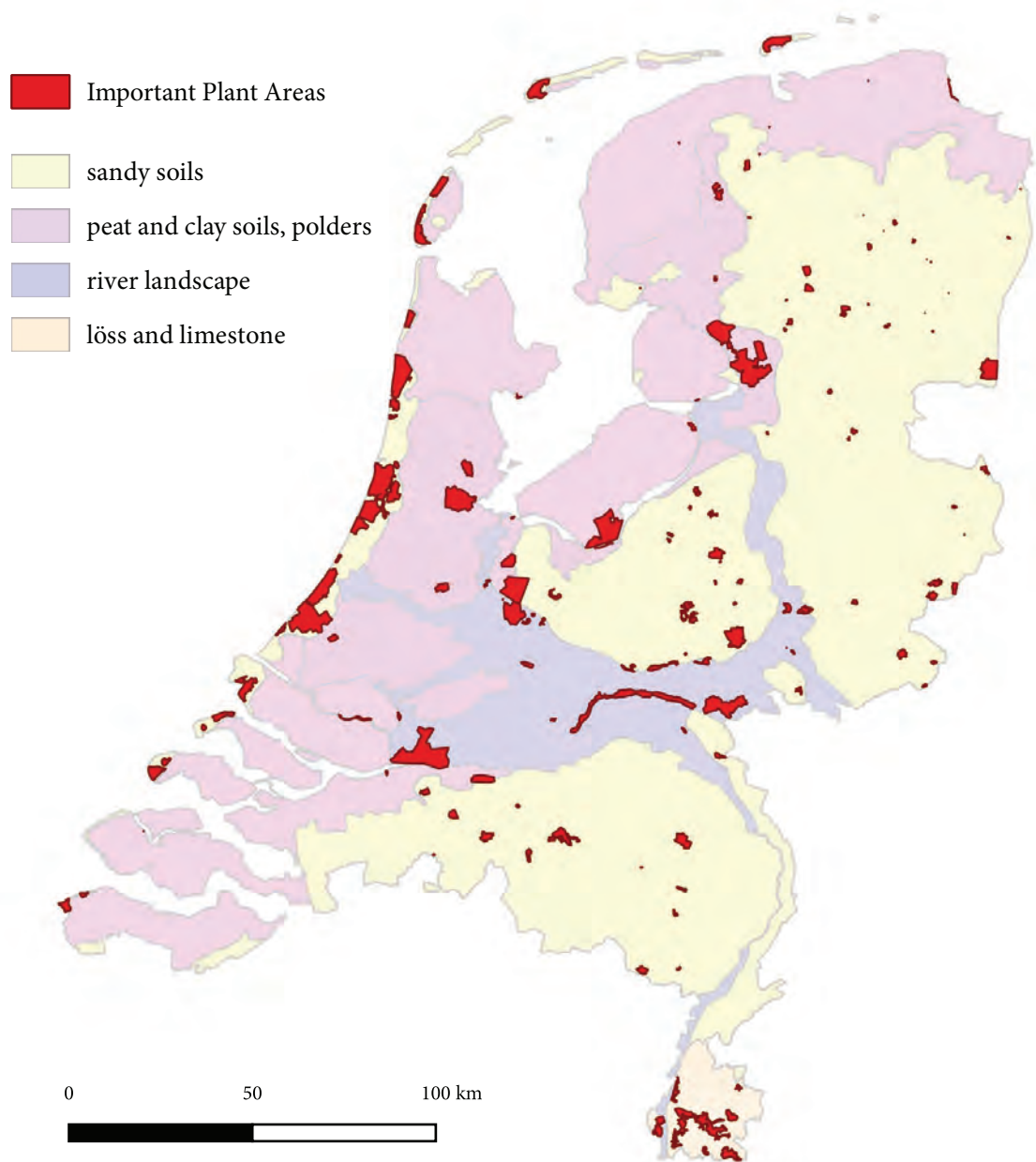


Fig. 1. Important Plant Areas in the Netherlands



Bellingwolde cemetery

Hotspot area: 2.3 ha

Natura 2000 site: -

Species groups: Lichens

Province: Groningen

Criterion B(i)

Lichens on rock (88 species)

Acarospora veronensis, *Catillaria atomarioides*, *Lepraria rigidula*, *Monerolechia badia*, *Placynthium nigrum*, *Rhizocarpon lecanorinum*, *Rhizocarpon petraeum*, *Xanthoparmelia loxodes*, *Xanthoparmelia pulla*, *Xanthoparmelia verruculifera*

References

Aptroot, A., C.M. van Herk, L.B. Sparrius & A.M. Brand (2000) Korstmossen in zuidoost Groningen, najaarsweekend 1999. *Buxbaumia* 52: 9-16.



Dyke Eemshaven-Delfzijl

Hotspot area: 15 ha

Natura 2000 site: -

Species groups: Lichens

Province: Groningen

Criterion B(i)

Lichens on rock (136 species)

Aspicilia grisea, *Blastenia crenularia*, *Circinaria leproscens*, *Flavoplaca marina*, *Lecanora rupicola*, *Ochrolechia parella*, *Pertusaria lactescens*, *Ramalina siliquosa*, *Variospora thallincola*, *Xanthoparmelia loxodes*

Criterion B(ii)

Red Listed lichens (41 species)

Aspicilia grisea, *Blastenia crenularia*, *Circinaria leproscens*, *Flavoplaca marina*, *Lecanora rupicola*, *Ochrolechia parella*, *Pertusaria lactescens*, *Ramalina siliquosa*, *Variospora thallincola*, *Xanthoparmelia loxodes*

References

Herk, C.M. van & L.B. Sparrius (2000) De lichenologische najaarsexcursie 1998 naar Noord-Groningen en Noord-Friesland. *Buxbaumiella* 51: 25-32.

Sparrius, L.B., A. Aptroot & C.M. van Herk (2001) Lichens on the sea dyke of the Ems near Delfzijl, including *Parmelia tinctoria* new to the Netherlands. *Aktuelle Lichenologische Mitteilungen*, NF 7: 9-14.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L. Soldaat (2007) Landelijk meetnet korstmossen (NEM), inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.



Pastoriehof Warffum

Hotspot area: 0.8 ha

Natura 2000 site: -

Species groups: Plants

Province: Groningen

Criterion B(iii)

Stinzen forests (9 species)

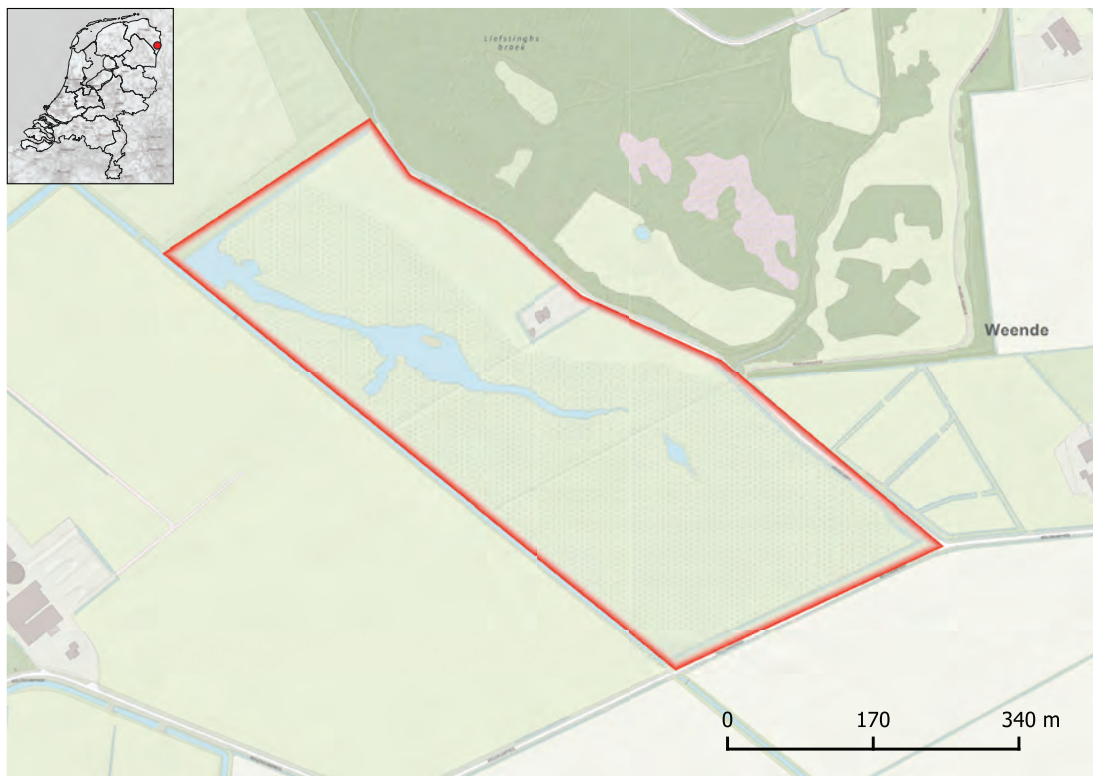
Arum italicum, *Eranthis hyemalis*, *Galanthus nivalis*, *Hyacinthoides non-scripta*, *Pentaglottis sempervirens*, *Petasites hybridus*, *Symphoricarpos albus*, *Tulipa sylvestris*, *Viola odorata*

References

Bakker, P. & E. Boeve (1985) Stinzenplanten. Terra, Zutphen.

Ploeg, D.T.E van der & M.T. Jansen (1985) Stinzenplanten in Nederland. KNNV, Hoogwoud.

Scheers, M. (2016) De Sneeuw klokken van de Weem in Warffum op de tocht.



Ruiten-Aa

Hotspot area: 23 ha

Natura 2000 site: Lieftingsbroek

Species groups: Bryophytes

Province: Groningen

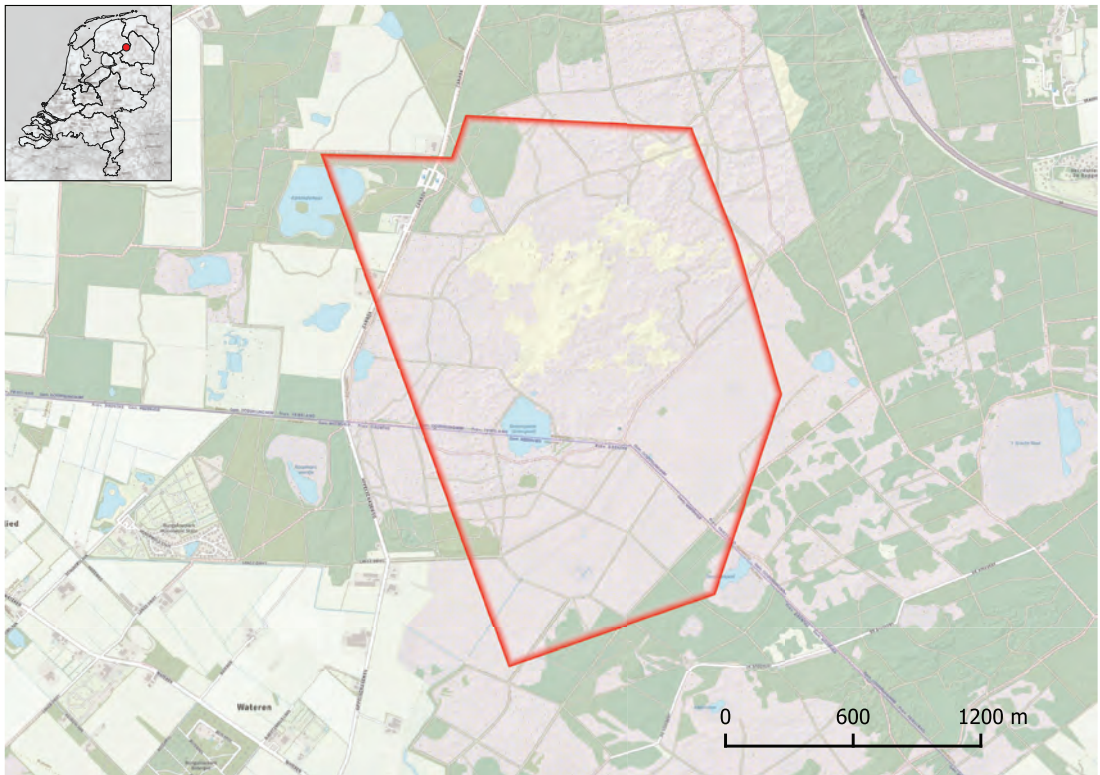
Criterion B(i)

Bryophytes of damp soil (22 species)

Archidium alternifolium, *Blasia pusilla*, *Bryum intermedium*, *Fossombronia incurva*, *Fossombronia wondraczekii*, *Pohlia bulbifera*, *Pohlia lescuriana*, *Pohlia wahlenbergii*, *Riccardia incurvata*, *Riccia beyrichiana*

References

Dort, K.W. van & M. Bekking (2019) Verslag van het BLWG Voorjaarskamp in Zuidoost-Groningen 2018. *Buxbaumiella* 114: 5-11.



Aekingerzand

Hotspot area: 371 ha

Natura 2000 site: Drents-Friese Wold & Leggelderveld

Species groups: Mushrooms

Province: Drenthe & Friesland

Criterion B(i)

Mushrooms of heaths and inland dunes (21 species)

Clavaria argillacea, *Claviceps microcephala*, *Deco-nica montana*, *Entoloma fernandae*, *Galerina pumila*, *Hypholoma elongatum*, *Multiclavula vernalis*, *Octo-spora humosa*, *Omphalina mutila*, *Pseudoomphalina pachyphylla*

References

Arnolds, E. & Chrispijn, R. (2011) Paddenstoelen in Nationaal Park 'Het Drents-Friese Wold' 2008-2010. Paddestoelen Werkgroep Drenthe.



Alde Faenen

Hotspot area: 602 ha

Natura 2000 site: Alde Feanen

Species groups: Bryophytes

Province: Friesland

Criterion B(i)

Bryophytes of marshland and wet grasslands (21 species)

Calliergon giganteum, *Campylium stellatum*, *Dicranum bonjeanii*, *Drepanocladus polygamus*, *Fissidens adianthoides*, *Pellia neesiana*, *Plagiomnium ellipticum*, *Ricciocarpos natans*, *Sphagnum contortum*, *Sphagnum teres*



Burgumer Mar

Hotspot area: 280 ha

Natura 2000 site: -

Species groups: Plants

Province: Friesland

Criterion B(i)

Vascular plants of fresh water and river banks (115 species)

Alisma gramineum, *Apium inundatum*, *Baldellia ranunculoides* subsp. *ranunculoides*, *Carex aquatilis*, *Cicuta virosa*, *Myriophyllum alterniflorum*, *Potamogeton compressus*, *Potamogeton gramineus*, *Potamogeton mucronatus*, *Potamogeton obtusifolius*

References

Staatsbosbeheer (2005) Oeverlanden van Bergumermeer herbergen bijzondere planten. Twirre 16: 115-118.



Church and cemetery of Wijckel

Hotspot area: 1.3 ha

Species groups: Lichens

Natura 2000 site: -

Province: Friesland

Criterion B(iii)

Historical buildings and cemeteries (Red Listed lichens) (7 species)

Aspicilia simoensis, *Cladonia pyxidata*, *Hypogymnia physodes*, *Lecanora soralifera*, *Lecidea lithophila*, *Porpidia macrocarpa*, *Xanthoparmelia verruculifera*



Dunes of West-Terschelling

Hotspot area: 1596 ha

Natura 2000 site: Duinen Terschelling

Species groups: Lichens, Plants

Province: Friesland

Criterion B(i)

Lichens in coastal dunes (37 species)

Cladonia ciliata, *Cladonia foliacea*, *Cladonia pocillum*, *Cladonia rei*, *Peltigera canina*, *Peltigera hymenina*, *Peltigera neckeri*, *Peltigera ponojensis*, *Platismatia glauca*, *Scytinium pulvinatum*

Vascular plants of coastal dunes and salt marshes (56 species)

Atriplex laciniata, *Botrychium lunaria*, *Juncus balticus*, *Schoenus nigricans*, *Oenanthe lachenalii*

Criterion B(ii)

Red Listed lichens (36 species)

Anaptychia runcinata, *Aspicilia grisea*, *Diplotomma chlorophaeum*, *Flavoplaca marina*, *Hydropunctaria maura*, *Pertusaria pseudocorallina*, *Ramalina siliquosa*, *Rhizocarpon richardii*, *Variospora thallincola*, *Xanthomendoza ulophyllodes*

Red Listed vascular plants (105 species)

Anacamptis morio, *Centunculus minimus*, *Cicendia filiformis*, *Eleocharis quinqueflora*, *Liparis loeselii*, *Neottia cordata*, *Pyrola minor*, *Radiola linoides*

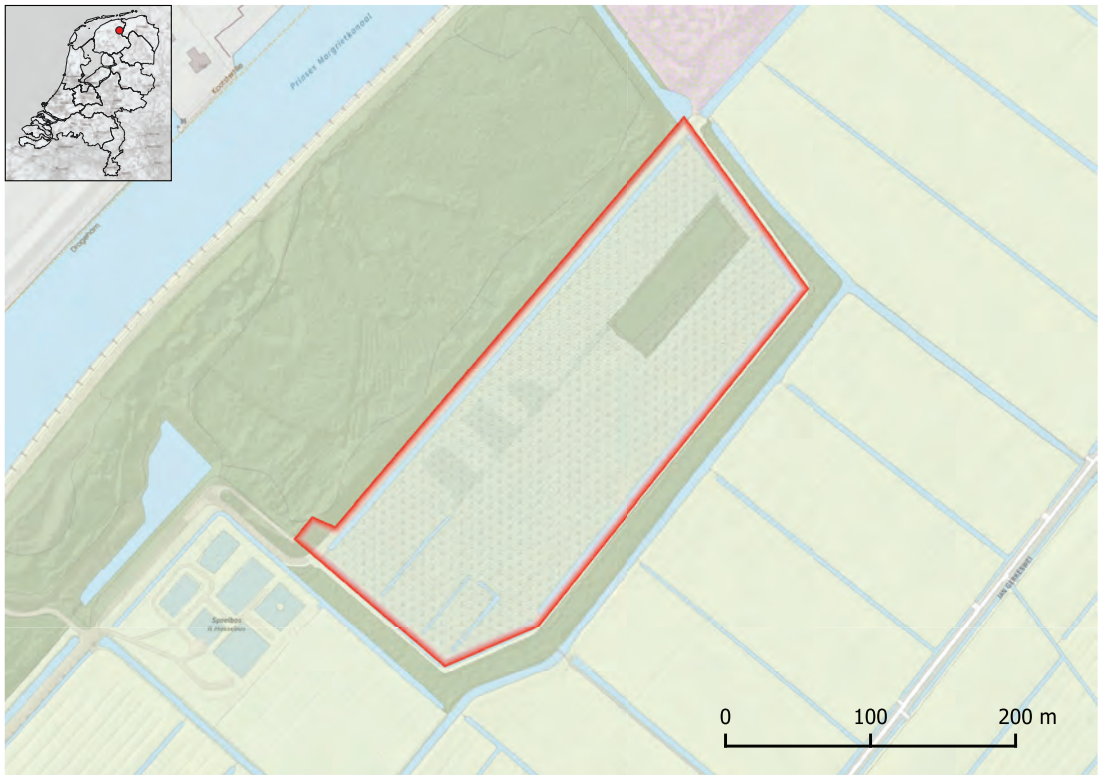
References

Aptroot, A., C.M. van Herk & L.B. Sparrius (2000) Lichenen van het najaarsweekend op Terschelling en enkele kerken in noordwest Friesland. *Buxbaumia* 53: 46-52.

Ketner-Oostra, R. (1972) Het terrestrisch voorkomen van *Alectoria fuscescens* Gyelnik s.l. in de droge duinen van Terschelling. *Gorteria* 9: 37-46.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L. Soldaat (2007) Landelijk meetnet korstmossen (NEM), inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.

Westhoff, V. & M.F. van Oosten (1992) De plantengroei van de Waddeneilanden. KNNV Uitgeverij, Utrecht.



Hege Bult - De Mieden

Hotspot area: 5.5 ha

Natura 2000 site: -

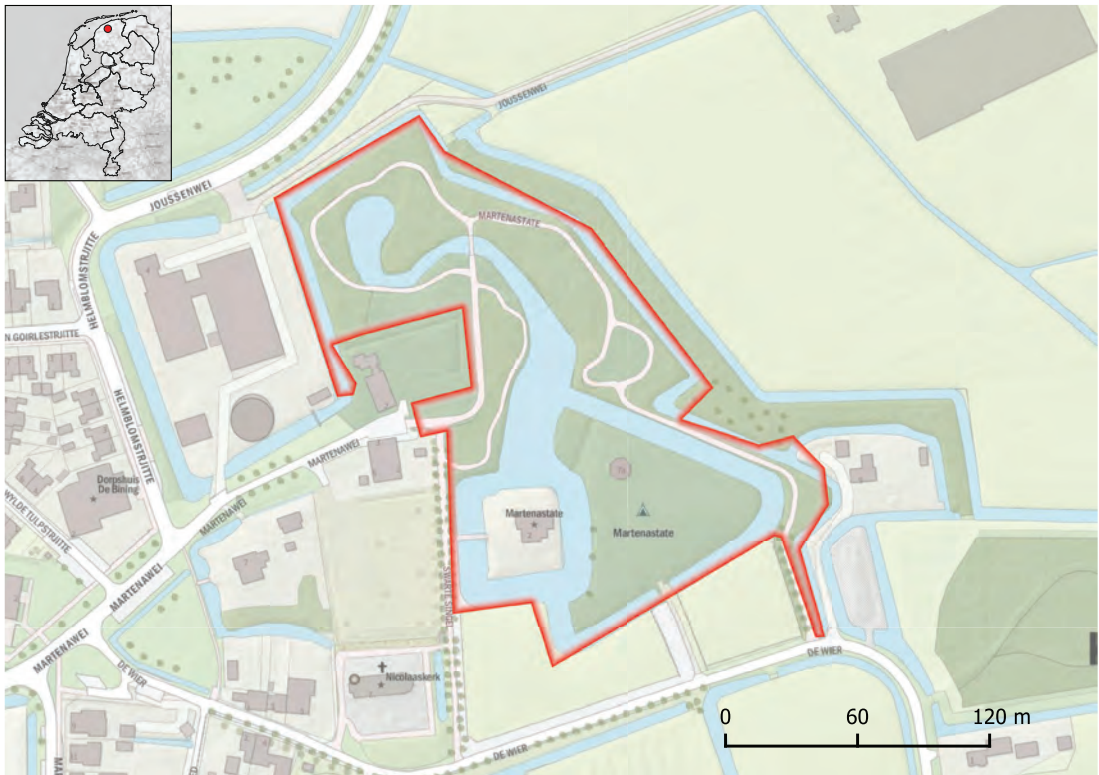
Species groups: Bryophytes

Province: Friesland

Criterion B(i)

Bryophytes of marshland and wet grasslands (19 species)

Bryum pseudotriquetrum, *Calliergon giganteum*, *Campylium stellatum*, *Climacium dendroides*, *Drepanocladus polygamus*, *Fissidens adianthoides*, *Plagiomnium ellipticum*, *Scorpidium cossonii*, *Scorpidium scorpioides*, *Sphagnum contortum*



Martenastate

Hotspot area: 2.9 ha

Natura 2000 site: -

Species groups: Plants

Province: Friesland

Criterion B(iii)

Stinzen forests (27 species)

Anemone apennina, Anemone ranunculoides, Arum maculatum, Corydalis solida, Crocus vernus, Narcissus poeticus, Ornithogalum nutans, Pulmonaria officinalis, Ribes alpinum, Tulipa sylvestris

References

Bakker, P. & E. Boeve (1985) Stinzenplanten. Terra, Zutphen.

Ploeg, D.T.E van der & M.T. Jansen (1985) Stinzenplanten in Nederland. KNNV, Hoogwoud.

Riemsdijk, W. van (2018) Cultuurhistorie van stinzenflora en hun voorkomen op Martenastate. Uitgeverij Wijdemeer.



Rotstergaasterwallen

Hotspot area: 59 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Friesland

Criterion B(i)

Hygrocybe grasslands (22 species)

Hygrocybe calyptriformis, Hygrocybe chlorophana, Hygrocybe glutinipes, Hygrocybe irrigata, Hygrocybe lacmus, Hygrocybe psittacina, Hygrocybe punicea, Hygrocybe reidii, Hygrocybe splendidissima, Hygrocybe vitellina

References

Putte, A. van der (2015) De NMV-excursies in 2014. Coolia 58: 191-205.



Philippusfenne

Hotspot area: 1.9 ha

Natura 2000 site: -

Species groups: Plants

Province: Friesland

Criterion B(iii)

Stinzen forests (48 species)

Anemone apennina, *Anemone ranunculoides*, *Aquilegia vulgaris*, *Cornus mas*, *Doronicum pardalianches*, *Fritillaria meleagris*, *Helleborus foetidus*, *Ornithogalum nutans*, *Scilla mischtschenkoana*, *Tulipa sylvestris*

References

Bakker, P. & E. Boeve (1985) Stinzenplanten. Terra, Zutphen.

Ploeg, D.T.E van der & M.T. Jansen (1985) Stinzenplanten in Nederland. KNNV, Hoogwoud.

Riemsdijk, W. van & T. van Riemsdijk-Zandee (2019) Stinse Stiens: Philippusfenne in Kollum (online).



Schiermonnikoog

Hotspot area: 1478 ha

Natura 2000 site: Duinen Schiermonnikoog

Species groups: Plants

Province: Friesland

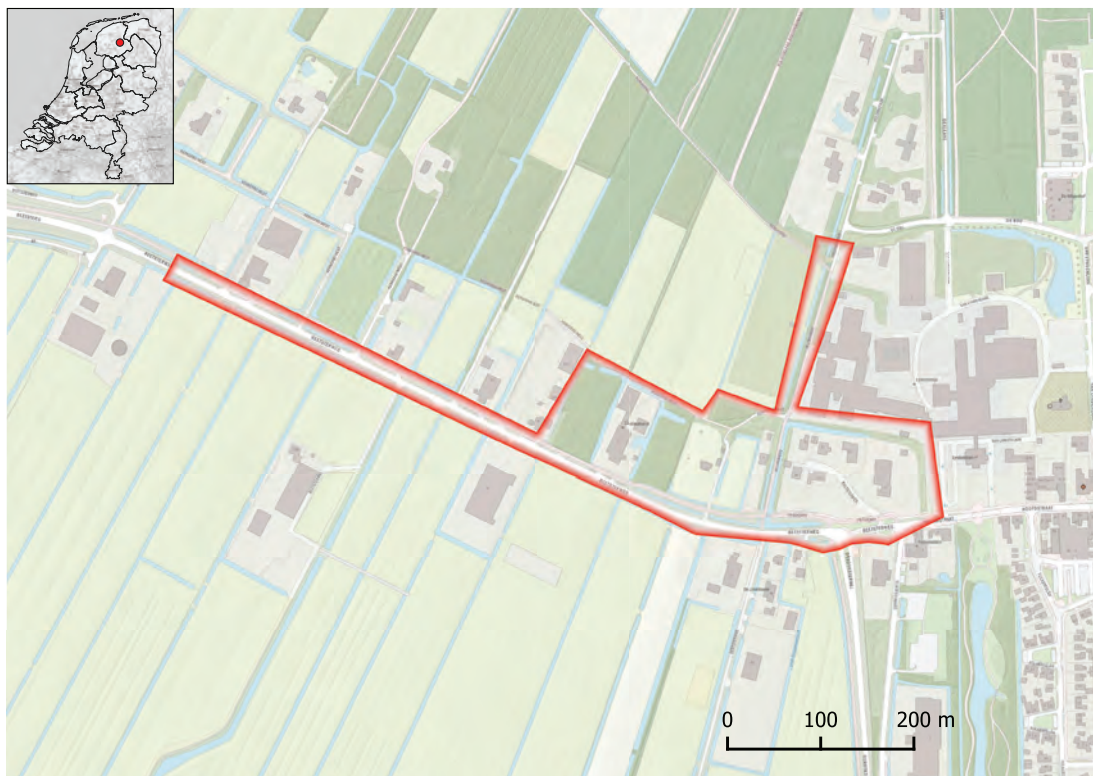
Criterion B(ii)

Red Listed vascular plants (111 species)

Baldellia ranunculoides subsp. *ranunculoides*, *Blysmus rufus*, *Centunculus minimus*, *Eleocharis quinqueflora*, *Eryngium maritimum*, *Juncus maritimus*, *Liparis loeselii*, *Pyrola minor*, *Radiola linoides*, *Schoenus nigricans*

References

Grootjans, A.P., J.W. de Jong & J.A.M. Janssen (1999) Sluftern en rode lijstsoorten op Schiermonnikoog : Een analyse van de vegetatieontwikkelingen in de Strand-vlakte en het gebied rond de Oosterduinen tussen 1958 en 1994. Laboratorium voor Plantenoeecologie Rijksuniversiteit Groningen.



Wayside trees Beetsterzwaag

Hotspot area: 7.7 ha

Species groups: Lichens

Natura 2000 site: -

Province: Friesland

Criterion B(i)

Lichens on wayside trees (72 species)

Arthonia atra, *Chrysothrix candelaris*, *Ochrolechia subviridis*, *Ochrolechia turneri*, *Opegrapha vermicellifera*, *Pachnolepia pruinata*, *Parmelina tiliacea*, *Pertusaria pertusa*, *Physconia distorta*, *Ramalina lacera*

References

Bijlsma, R.J., A. Aptroot, K.W. van Dort, R. Haveman, C.M. van Herk, A.M. Kooijman, L.B. Sparrius & E.J. Weeda (2009) Preadvies mossen en korstmossen. Ministerie van Landbouw, Directie Kennis rapport 2009/dk104-O.



Asserbos

Hotspot area: 111 ha

Natura 2000 site: -

Species groups: Mushrooms & lichens

Province: Drenthe

Criterion B(i)

Forest lichens (81 species)

Cladonia polydactyla, *Graphis scripta*, *Lecanactis abietina*, *Opegrapha vermicellifera*, *Parmeliopsis ambigua*, *Pertusaria hymenea*, *Platismatia glauca*, *Thelotrema lepadinum*, *Tuckermanopsis chlorophylla*, *Usnea subfloridana*

Criterion B(iii)

Cemeteries (Red Listed mushrooms) (51 species)

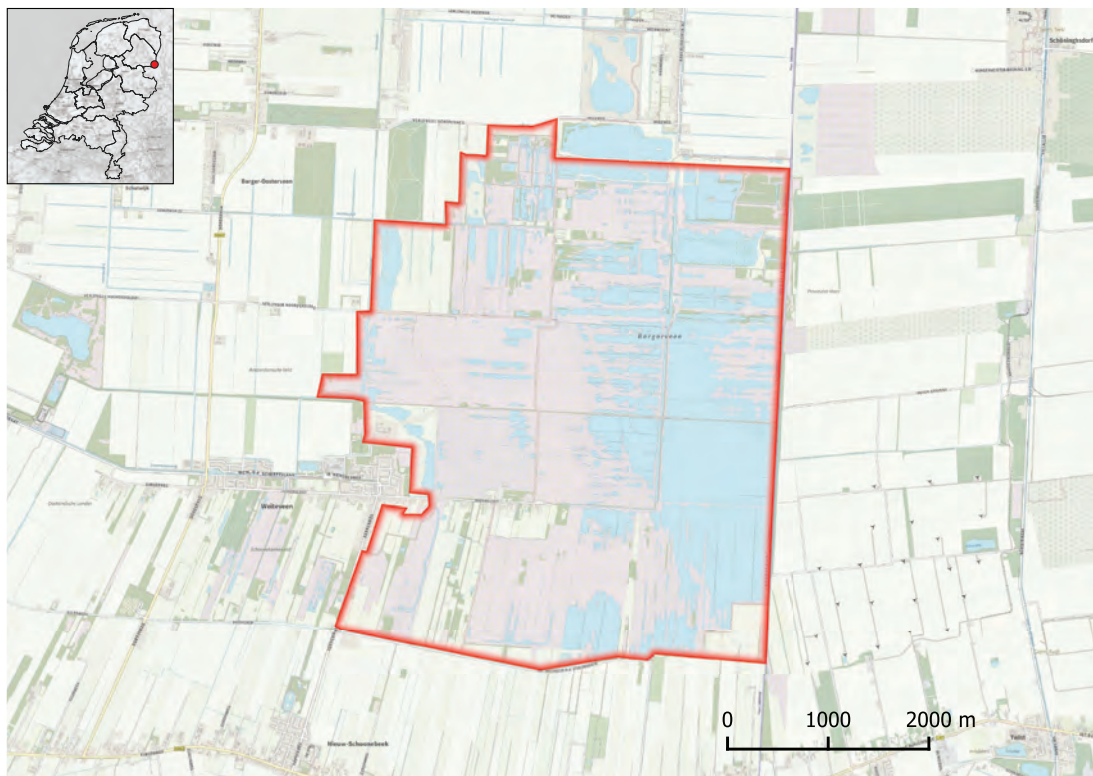
Cantharellus cibarius, *Cantharellus tubaeformis*, *Cortinarius croceocaeruleus*, *Elaphomyces muricatus*, *Gymnopilus odini*, *Inocybe calospora*, *Inocybe paludinella*, *Postia sericeomollis*, *Ramariopsis crocea*, *Tapinella atrotomentosa*

References

Arnolds, E., Chrispijn, R. & R. Enzlin (2015) Ecologische atlas van de paddenstoelen in Drenthe. Deel 2 Graslanden, heiden, moerassen en cultuurland. Stichting Paddenstoelen Werkgroep Drenthe, Beilen.

Boom, P.P.G. van den & A. Aptroot (1992) De lichnologische voorjaarsexcursie van 1991 naar Drente, de Noordoostpolder en Noordwest-Overijssel, met gegevens over het belang van hunebedden voor de korstmosflora. *Buxbaumiella* 28: 49-58.

Gutter, A. (2005) De excursies in 2004: Jaar vol zeldzaamheden. *Coolia* 48: 149-159.



Bargerveen

Hotspot area: 1979 ha

Natura 2000 site: Bargerveen

Species groups: Bryophytes

Province: Drenthe

Criterion B(i)

Bryophytes of acidic peat bogs (28 species)

e.g. *Calypogeia sphagnicola*, *Sphagnum fuscum*

Ministerie van EL&I, directie IFZ/Bedrijfsuitgeverij, Den Haag. Rapport nr. 2011/OBN150-NZ

Jansen, A.J.M. & E. Oosterveld (1987) Een veen-moskartering en landschapsecologische interpretatie daarvan voor het Meerstalblok. Bureau Langbroek, Leeuwarden.

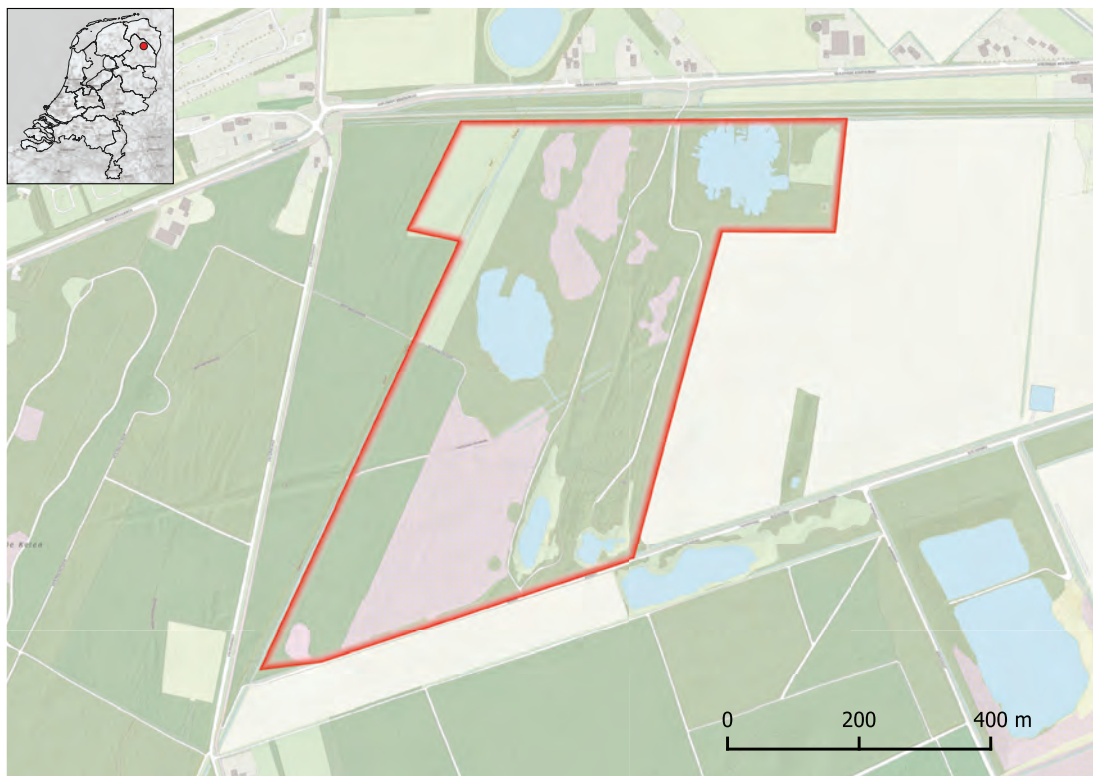
Criterion B(ii)

Red Listed bryophytes (27 species)

Cephalozia macrostachya, *Cephaloziella rubella*, *Cladopodiella fluitans*, *Kurzia pauciflora*, *Sphagnum capillifolium*, *Sphagnum flexuosum*, *Sphagnum molle*, *Sphagnum pulchrum*, *Sphagnum riparium*, *Sphagnum rubellum*

References

Duinen, G.A. van, H. Tomassen, J.U. Limpens, F. Smolders, S. van der Schaaf, W. Verberk, D. Groenendijk, M. Wallis de Vries & J. Roelofs (2011) Perspectieven voor hoogveenherstel in Nederland. Samenvatting onderzoek en handleiding hoogveenherstel 1998-2010



Boekweitenveentje, Gieten

Hotspot area: 37 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Drenthe

Criterion B(i)

Mushrooms of scrub and coppices (32 species)

Alnicola amarescens, *Botryobasidium laeve*, *Calocybe gambosa*, *Cortinarius cinnamomeoluteus*, *Cortinarius uliginosus* f. *uliginosus*, *Geastrum triplex*, *Inocybe agardhii*, *Phaeomarasmium erinaceus*, *Russula subrubens*, *Tricholoma cingulatum*

Criterion B(ii)

Red Listed macrofungi (144 species)

Amanita crocea, *Ascobolus carbonarius*, *Callistosporium luteoolivaceum*, *Coprinopsis gonophylla*, *Cortinarius simulatus*, *Entoloma atrocoeruleum*, *Entoloma griseocyaneum*, *Entoloma querquedula*, *Gymnopilus decipiens*, *Sistotrema confluent*

References

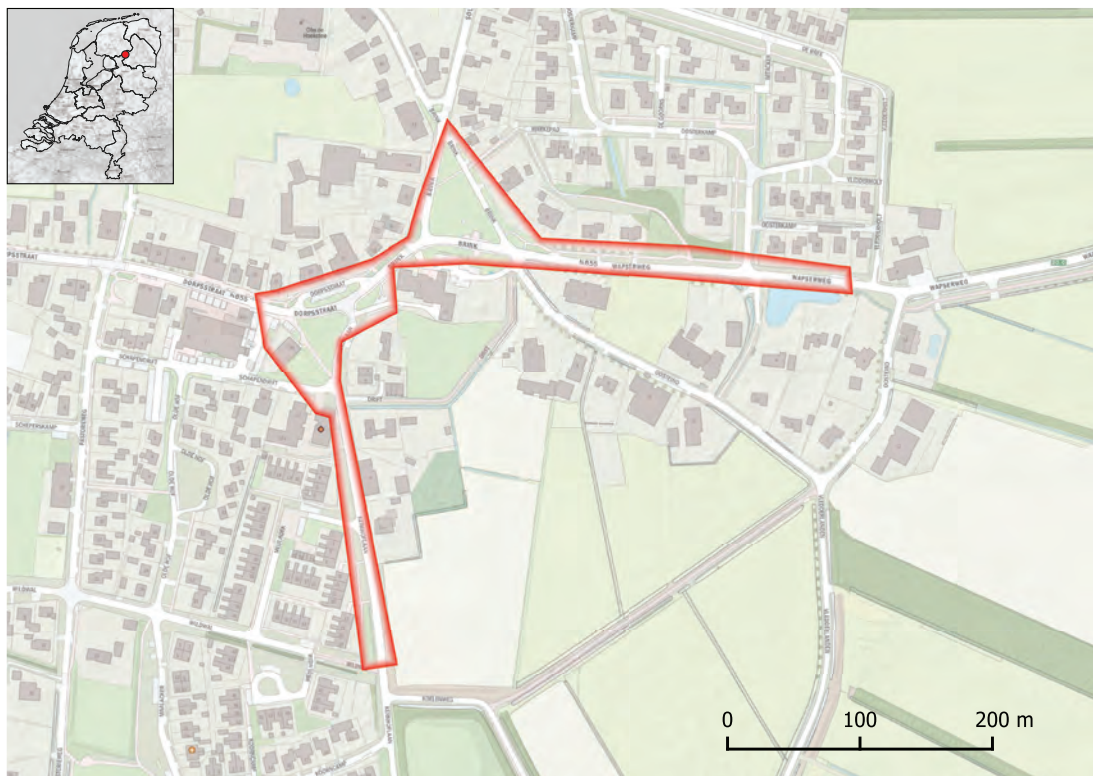
Arnolds, E., Chrispijn, R. & R. Enzlin (2015) Ecologische atlas van de paddenstoelen in Drenthe. Deel 2 Graslanden, heiden, moerassen en cultuurland. Stichting Paddenstoelen Werkgroep Drenthe, Beilen.

Arnolds, E., Chrispijn, R. & R. Enzlin (2015) Ecologische atlas van de paddenstoelen in Drenthe. Deel 3 Loof- en naaldbossen. Stichting Paddenstoelen Werkgroep Drenthe, Beilen.

Chrispijn, R. (1995) De NMV excursies van 1994. Coolia 38: 73-80.

Putte, A. van der (2014) De NMV-excursies in 2012. Coolia 57: 7-26.

Vries, B. de (2001) De NMV-excursies van 2000. Coolia 44: 153-162.



Wayside trees Vledder

Hotspot area: 2.4 ha

Natura 2000 site: -

Species groups: Lichens

Province: Drenthe

Criterion B(i)

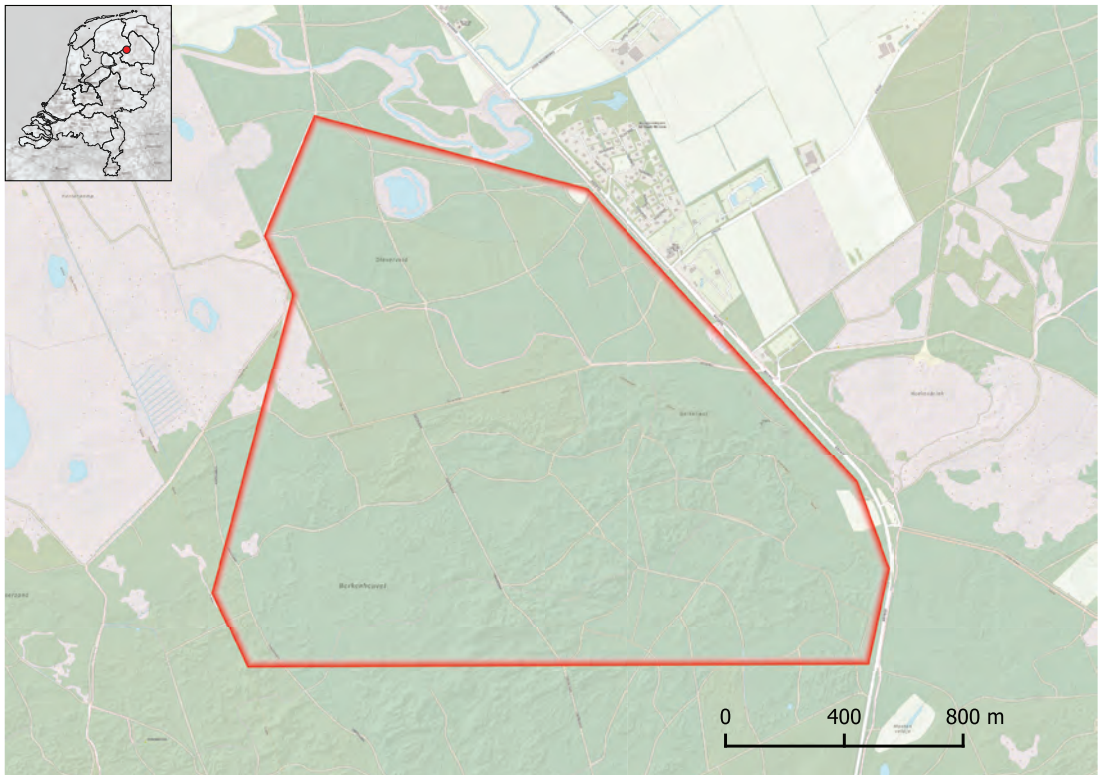
Lichens on wayside trees (70 species)

Calicium viride, *Lecanora saligna*, *Melanohalea laciniatula*, *Ochrolechia turneri*, *Pertusaria albescens*, *Pertusaria amara*, *Pertusaria pertusa*, *Protoparmelia hypotremella*, *Protoparmelia oleagina*, *Pseudevernia furfuracea*

References

Boom, P.P.G. van den & C.M. van Herk (1994) De lichenologische najaarsexcursie van 1993 naar Diever (Drente). *Buxbaumiella* 34: 54-68.

Herk, C.M. van (2017) Monitoring van korstmossen in Drenthe, 1991-2016. Lichenologisch Onderzoeksbureau Nederland, Soest.



Drents-Friese Wold, Berkenheuvel & Dieverveld

Hotspot area: 298 ha

Species groups: Mushrooms

Natura 2000 site: Drents-Friese Wold & Leggelderveld

Province: Drenthe

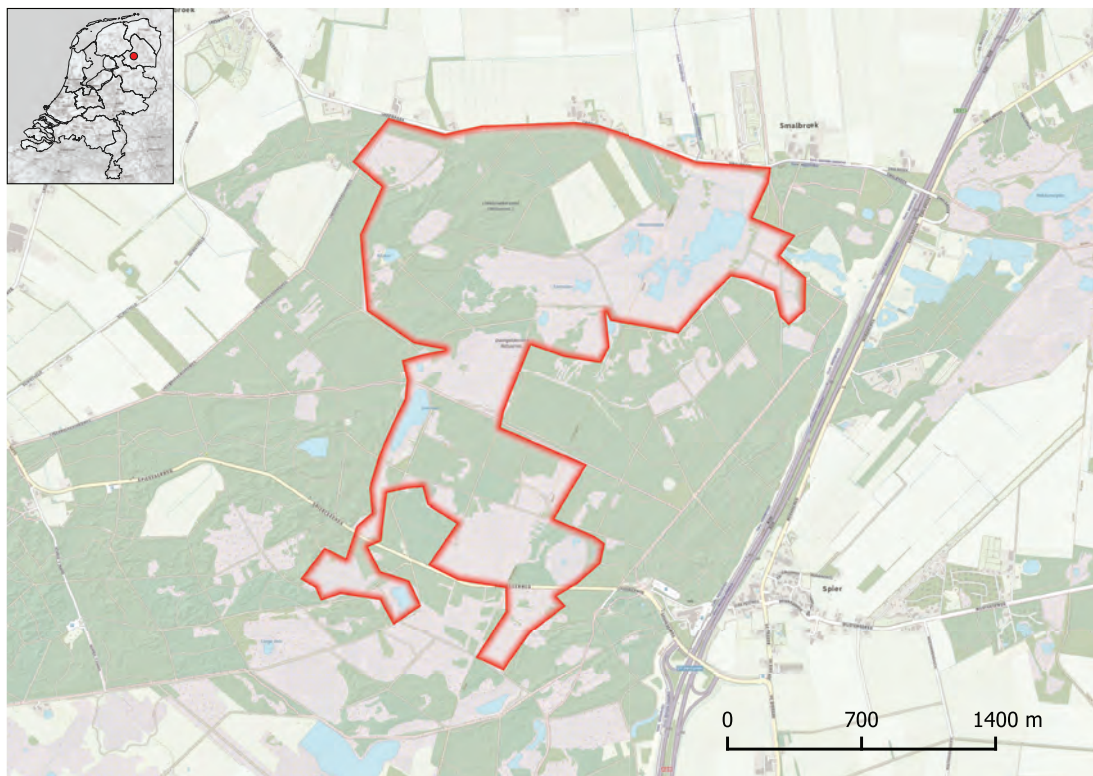
Criterion B(i)

Mushrooms of coniferous forests (142 species)

Cortinarius camphoratus, *Cortinarius imbutus*, *Cortinarius malachius*, *Gomphidius glutinosus*, *Helvella leucomelaena*, *Postia guttulata*, *Pseudoplectania nigrella*, *Ramaria eumorpha*, *Suillus pictus*, *Suillus placidus*

References

Arnolds, E. & Chrispijn, R. (2011) Paddenstoelen in Nationaal Park 'Het Drents-Friese Wold' 2008-2010. Paddestoelen Werkgroep Drenthe.



Dwingelderveld

Hotspot area: 333 ha

Natura 2000 site: Dwingelderveld

Species groups: Bryophytes

Province: Drenthe

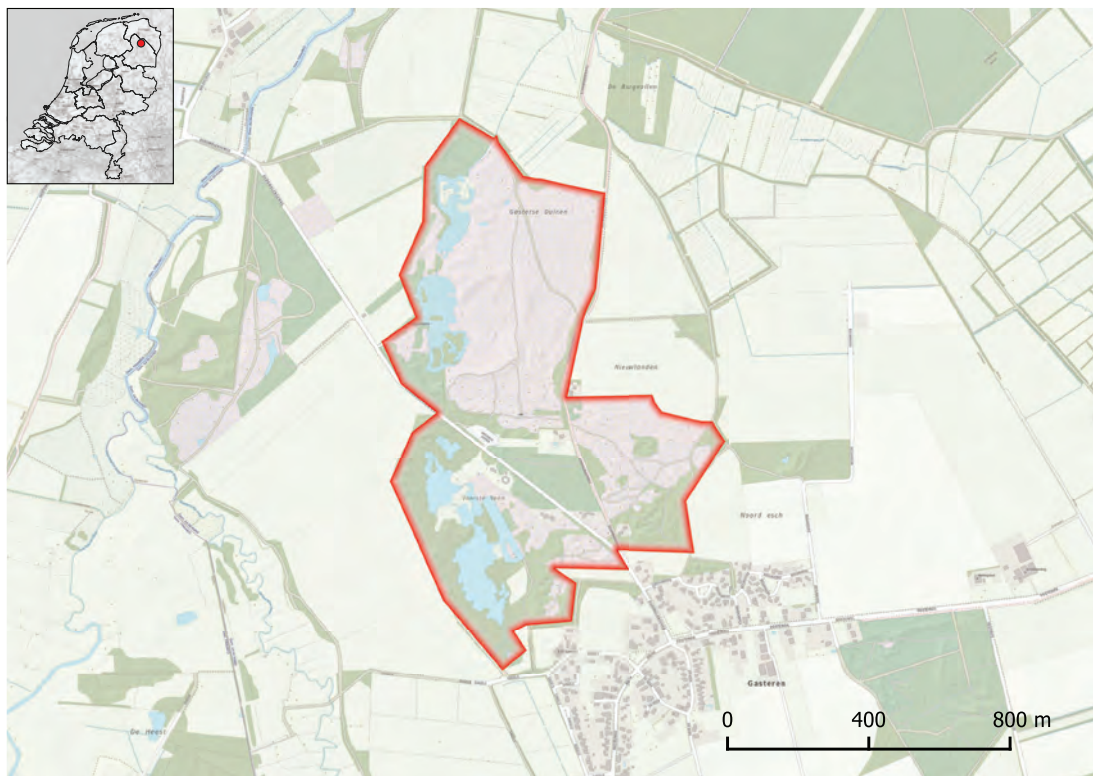
Criterion B(ii)

Red Listed bryophytes (32 species)

Barbilophozia barbata, Calypogeia sphagnicola, Cladopodiella fluitans, Scapania nemorea, Sphagnum capillifolium, Sphagnum flexuosum, Sphagnum majus, Sphagnum molle, Sphagnum riparium, Sphagnum rubellum

References

Everts, F.H., G.J. Baaijens, A.P. Grootjans, N.P.J. de Vries & A. Verschoor (2005) Grootschalige landschappen en heidebeheer: Dwingelderveld. De Levende Natuur 106: 193-199.



Gasterse Duinen

Hotspot area: 80 ha

Natura 2000 site: Drentsche Aa-gebied

Species groups: Bryophytes, Lichens

Province: Drenthe

Criterion B(i)

Bryophytes of heaths and forested heaths (22 species)

Barbilophozia barbata, *Barbilophozia kunzeana*, *Cephaloziella hampeana*, *Cephaloziella rubella*, *Dicranella cerviculata*, *Dicranella rufescens*, *Leptodontium gemmascens*, *Lophozia ventricosa*, *Ptilidium ciliare*, *Scapania compacta*

Lichens in heaths and inland dunes (39 species)

Baeomyces rufus, *Cladonia borealis*, *Cladonia callosa*, *Cladonia monomorpha*, *Cladonia pulvinata*, *Cladonia strepsilis*, *Cladonia verticillata*, *Diploschistes muscorum*, *Micarea leprosula*, *Micarea lignaria*

2009/dk104-O.

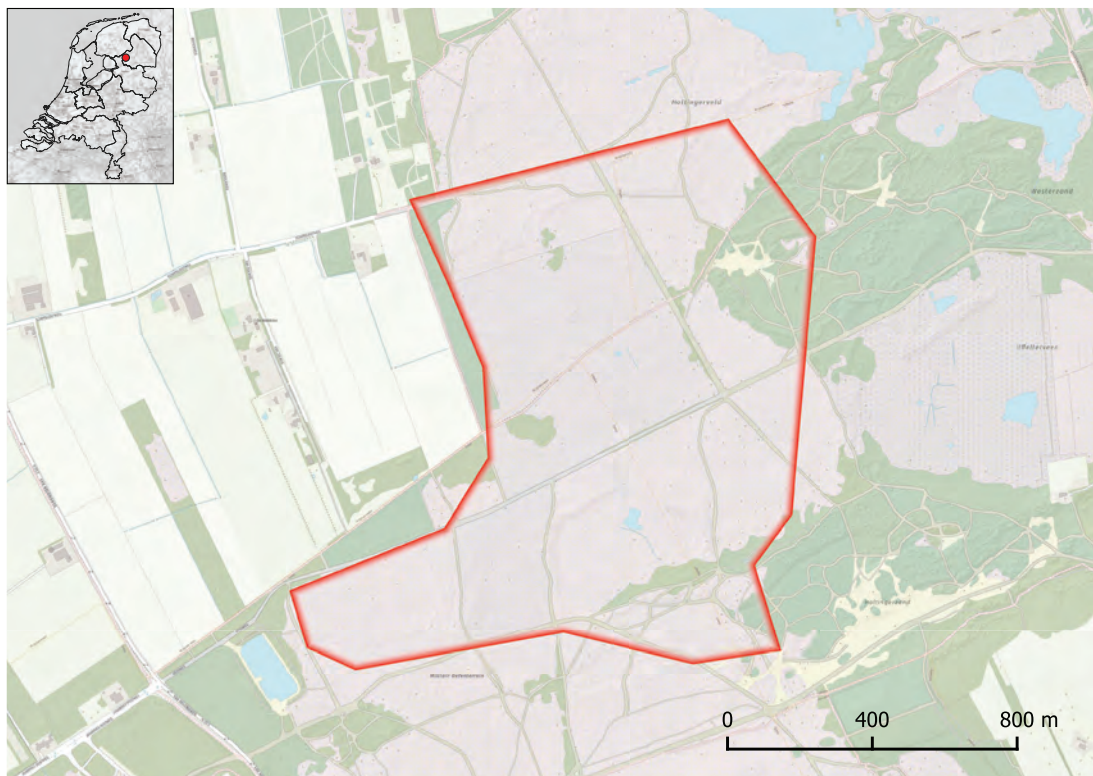
Zanten, B.O. van (1995) *Leptodontium gemmascens* (Mitt. ex Hunt) Braithw. Nieuw voor Nederland. *Buxbaumia* 38: 4-5.

Zanten, B.O. van, W.J. de Ruiter, E. de Haas-Lely & E.H. Rietsema (2002) *De Gasterse Duinen*. *Buxbaumia* 59: 3-9.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L. Soldaat (2007) Landelijk meetnet korstmossen (NEM), inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.

References

Bijlsma, R.J., A. Aptroot, K.W. van Dort, R. Haveman, C.M. van Herk, A.M. Kooijman, L.B. Sparrius & E.J. Weeda (2009) *Preadvies mossen en korstmossen*. Ministerie van Landbouw, Directie Kennis rapport



Holtingerzand & Kleine startbaan

Hotspot area: 139 ha

Natura 2000 site: Holtingerveld

Species groups: Mushrooms

Province: Drenthe

Criterion B(i)

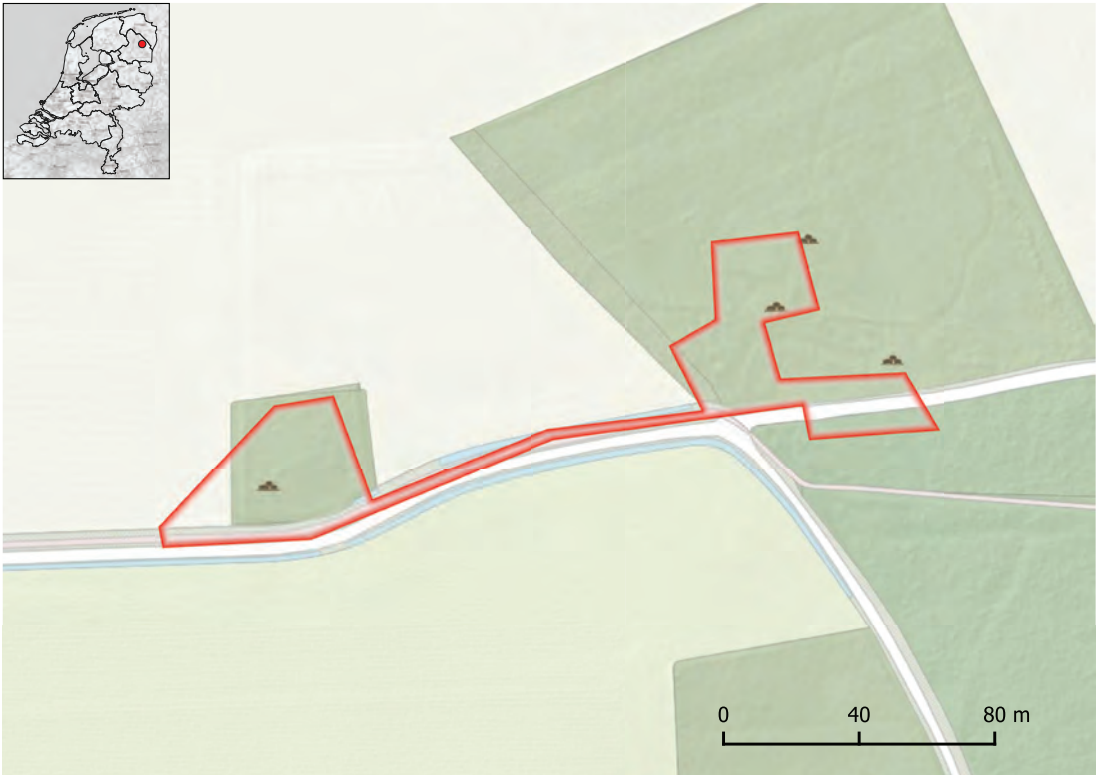
Mushrooms of heaths and inland dunes (18 species)

Clavaria argillacea, *Claviceps microcephala*, *Deco-nica montana*, *Entoloma fernandae*, *Galerina pumila*, *Gymnopilus fulgens*, *Hypholoma elongatum*, *Octospora humosa*, *Pseudoomphalina pachyphylla*, *Roseodiscus formosus*

References

Arnolds, E., Chrispijn, R. & R. Enzlin (2015) Ecologische atlas van de paddenstoelen in Drenthe. Deel 2 Graslanden, heiden, moerassen en cultuurland. Stichting Paddenstoelen Werkgroep Drenthe, Beilen.

Vries, B. de (2001) De NMV-excursies van 2000. *Coolia* 44: 153-162.



Hunebedden Bronneger (dolmen)

Hotspot area: 0.4 ha

Species groups: Bryophytes

Natura 2000 site: -

Province: Drenthe

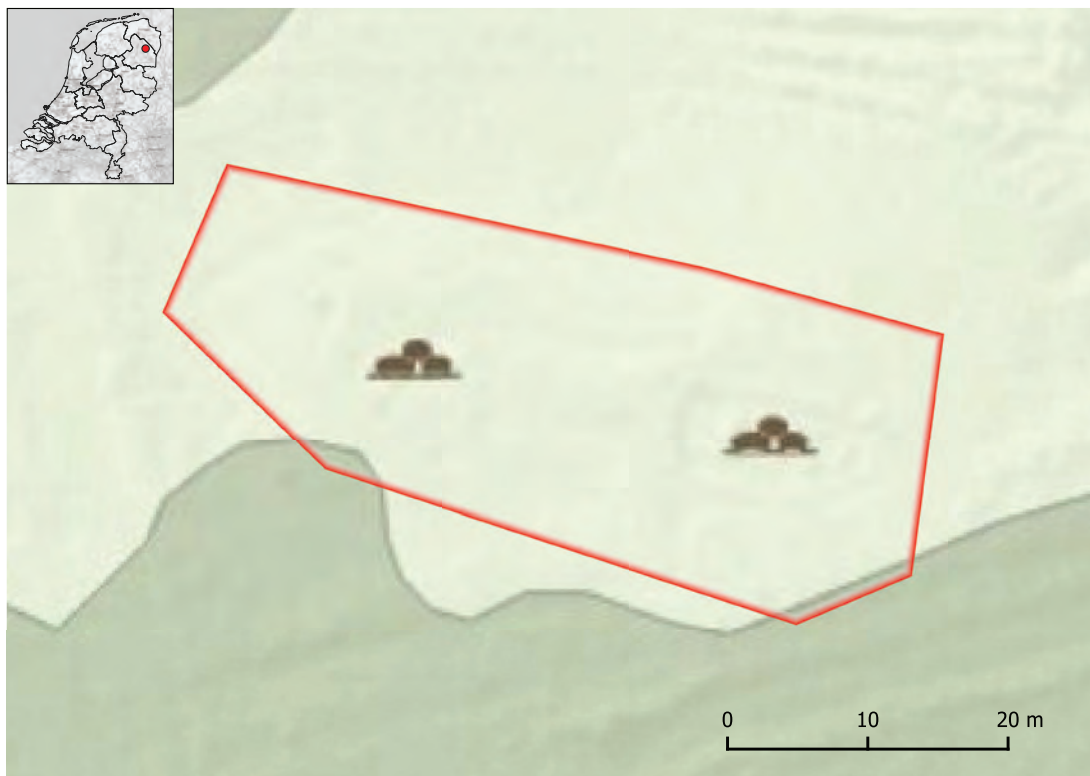
Criterion B(i)

Pioneer bryophytes on acidic rock (5 species)

Andreaea rothii, *Andreaea rupestris*, *Grimmia trichophylla*, *Hedwigia stellata*, *Racomitrium heterostichum*

References

Boele, C. & B.O. van Zanten (1984) De achteruitgang van de Nederlandse hunebeddenflora. *Lindbergia* 10: 187-189.



Hunebedden Drouwen (dolmen)

Hotspot area: 0.1 ha

Natura 2000 site: -

Species groups: Lichens

Province: Drenthe

Criterion B(i)

Lichens on rock (63 species)

Aspicilia grisea, *Aspicilia verrucigera*, *Baeomyces rufus*, *Lecanora orosthea*, *Lecidea lithophila*, *Lecidea promixta*, *Lepraria ecorticata*, *Lepraria neglecta*, *Lepraria rigidula*, *Rhizocarpon distinctum*

Criterion B(ii)

Red Listed lichens (15 species)

Aspicilia grisea, *Aspicilia verrucigera*, *Baeomyces rufus*, *Lecanora orosthea*, *Lecidea lithophila*, *Lecidea promixta*, *Lepraria ecorticata*, *Lepraria neglecta*, *Lepraria rigidula*, *Rhizocarpon distinctum*

References

Aptroot, A., C.M. van Herk & L.B. Sparrius (2017). Twenty-two years of monitoring the lichen flora of megalithic monuments in the Netherlands. *Herzogia* 30: 483–495.

Toetenel, W.J. (2018) Beheeradvies bomen rond hunebedden. BLWG-rapport 22: 1-69.



Hunebed D5 Zeijen (dolmen)

Hotspot area: 0.1 ha

Species groups: Bryophytes

Natura 2000 site: -

Province: Drenthe

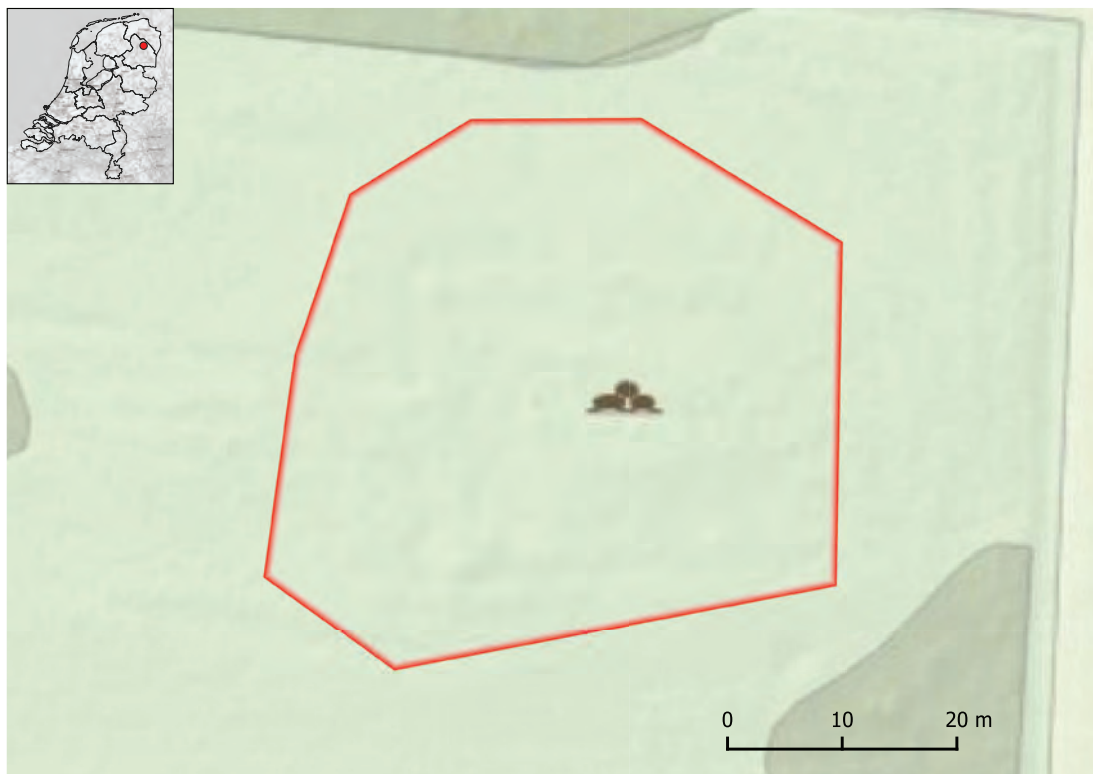
Criterion B(i)

Pioneer bryophytes on acidic rock (4 species)

Andreaea rupestris, *Grimmia trichophylla*, *Racomitrium fasciculare*, *Racomitrium heterostichum*

References

Boele, C. & B.O. van Zanten (1986) De achteruitgang van de Nederlandse hunebeddenflora. *Buxbaumiella* 18: 41-43.



Hunebed D14 Eexterhalte (dolmen)

Hotspot area: 0.2 ha

Species groups: Lichens

Natura 2000 site: -

Province: Drenthe

Criterion B(ii)

Red Listed lichens (17 species)

Aspicilia grisea, *Fuscidea praeruptorum*, *Lecanora orosthea*, *Lecanora rupicola*, *Lecanora soralifera*, *Lecidea lithophila*, *Lecidea promixta*, *Rhizocarpon lecanorinum*, *Tuckermanopsis chlorophylla*, *Xanthoparmelia loxodes*

References

Aptroot, A., C.M. van Herk & L.B. Sparrius (2017). Twenty-two years of monitoring the lichen flora of megalithic monuments in the Netherlands. *Herzogia* 30: 483–495.

Toetenel, W.J. (2018) Beheeradvies bomen rond hunebedden. BLWG-rapport 22: 1-69.



Hunebed D15 Loon (dolmen)

Hotspot area: 0.1 ha

Species groups: Lichens

Natura 2000 site: -

Province: Drenthe

Criterion B(ii)

Red Listed lichens (18 species)

Aspicilia grisea, *Lecanora orosthea*, *Lecidea lithophila*,
Lecidea plana, *Lecidea promixa*, *Micarea lignaria*,
Rhizocarpon distinctum, *Stereocaulon dactylophyllum*,
Xanthoparmelia loxodes, *Xanthoparmelia verruculifera*

References

Aptroot, A., C.M. van Herk & L.B. Sparrius (2017).
 Twenty-two years of monitoring the lichen flora of
 megalithic monuments in the Netherlands. *Herzogia*
 30: 483–495.

Toetenel, W.J. (2018) Beheeradvies bomen rond hune-
 bedden. BLWG-rapport 22: 1-69.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L.
 Soldaat (2007) Landelijk meetnet korstmossen (NEM),
 inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.



Hunebed D31 Valthe (dolmen)

Hotspot area: 0.1 ha

Species groups: Bryophytes

Natura 2000 site: -

Province: Drenthe

Criterion B(i)

Pioneer bryophytes on acidic rock (3 species)

Andreaea rupestris, *Grimmia trichophylla*, *Racomitrium heterostichum*



Hunebed D49 Papeloze Kerk (dolmen)

Hotspot area: 0.1 ha

Species groups: Bryophytes

Natura 2000 site: -

Province: Drenthe

Criterion B(i)

Pioneer bryophytes on acidic rock (4 species)

Andreaea rupestris, *Grimmia trichophylla*, *Racomitrium aciculare*, *Racomitrium heterostichum*



Kamperzand

Hotspot area: 27 ha

Natura 2000 site: -

Species groups: Lichens

Province: Drenthe

Criterion B(i)

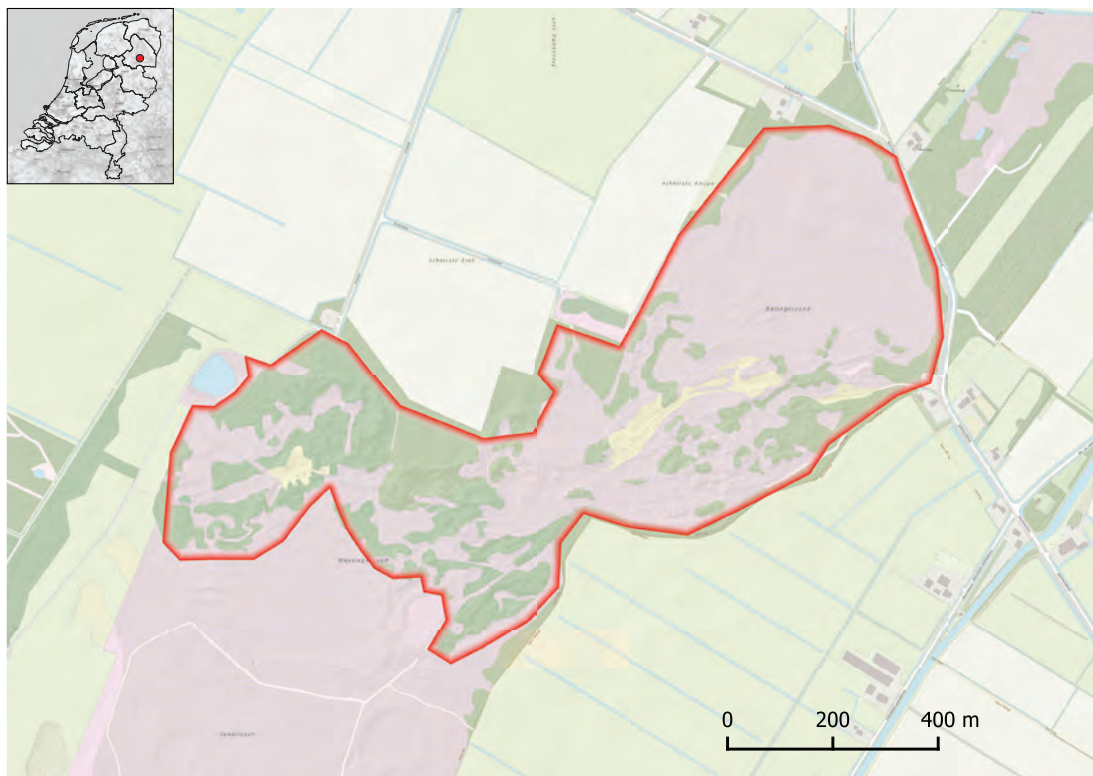
Lichens in heaths and inland dunes (44 species)

Baeomyces rufus, Cetraria islandica, Cladonia borealis, Cladonia callosa, Cladonia pulvinata, Cladonia strepsilis, Cladonia verticillata, Diploschistes muscorum, Placynthiella oligotropha, Placynthiella uliginosa

References

Boom, P.P.G. van den & A. Aptroot (1992) De lichnologische voorjaarsexcursie van 1991 naar Drente, de Noordoostpolder en Noordwest-Overijssel, met gegevens over het belang van hunebedden voor de korstmosflora. Buxbaumiella 28: 49-58.

Sparrius, L.B., A. Aptroot, C.M. van Herk & L.L. Soldaat (2006) Landelijk meetnet korstmossen. Inhoudelijke rapportage 2005. BLWG-rapport 5: 1-41.



Mantingerzand

Hotspot area: 64 ha

Natura 2000 site: Mantingerzand

Species groups: Lichens

Province: Drenthe

Criterion B(i)

Lichens in heaths and inland dunes (41 species)

Baeomyces rufus, *Cetraria islandica*, *Cladonia borealis*, *Cladonia ciliata*, *Cladonia phyllophora*, *Cladonia pulvinata*, *Cladonia strepsilis*, *Cladonia verticillata*, *Micarea leprosula*, *Placynthiella uliginosa*

References

Bijlsma, R.J., A. Aptroot, K.W. van Dort, R. Haveman, C.M. van Herk, A.M. Kooijman, L.B. Sparrius & E.J. Weeda (2009) Preadvies mossen en korstmossen. Ministerie van Landbouw, Directie Kennis rapport 2009/dk104-O.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L. Soldaat (2007) Landelijk meetnet korstmossen (NEM), inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.



Natuurgebied Schepping, Beilen

Hotspot area: 7.1 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Drenthe

Criterion B(i)

Mushrooms of farmland, parks, cities and roadsides
(96 species)

Agaricus subrufescens, *Byssomerulius corium*, *Clathrus archeri*, *Coprinellus congregatus*, *Coprinellus pyrrhanthes*, *Coprinopsis cortinata*, *Coprinopsis lagopus*, *Coprinopsis phaeospora*, *Psathyrella narcotica*, *Stropharia caerulea*

Criterion B(ii)

Red Listed macrofungi (134 species)

Agaricus subrufescens, *Amylostereum laevigatum*, *Clavaria straminea*, *Clavicornia taxophila*, *Conocybe dumetorum*, *Coprinellus congregatus*, *Cortinarius bivelus*, *Discinella boudieri*, *Galerina alluviana*, *Hemimycena ignobilis*

References

Aptroot, A. & E. Arnolds (2012) Veranderingen in de korstmossen en mossen in Schepping, een particulier natuurontwikkelingssterrein bij Beilen. *Buxbaumia* 91: 42-48.

Arnolds, E., Chrispijn, R. & R. Enzlin (2015) Ecologische atlas van de paddenstoelen in Drenthe. Deel 2 Graslanden, heiden, moerassen en cultuurland. Stichting Paddenstoelen Werkgroep Drenthe, Beilen.

Putte, A. van der (2009) De excursies in 2008. *Coolia* 52: 198-216.



Takkenhoogte & Meeuwenveen

Hotspot area: 75 ha

Species groups: Mushrooms

Natura 2000 site: -

Province: Drenthe

Criterion B(i)

Mushrooms of heaths and inland dunes (17 species)

Clavaria argillacea, *Claviceps microcephala*, *Deconica montana*, *Galerina pumila*, *Geoglossum arenarium*, *Hypholoma elongatum*, *Neottiella vivida*, *Octospora humosa*, *Omphalina chlorocyanea*, *Omphalina mutila*

References

Arnolds, E., Chrispijn, R. & Vries, B. de (2016) De excursies van de PWD in 2015. Nieuwsbrief Paddestoelenwerkgroep Drenthe 17: 5-12.



Wayside trees Sleen

Hotspot area: 3.0 ha

Natura 2000 site: -

Species groups: Lichens

Province: Drenthe

Criterion B(i)

Lichens on wayside trees (84 species)

Anaptychia ciliaris, Fellhanera subtilis, Melanohalea laciniatula, Ochrolechia subviridis, Pertusaria albes-cens, Pertusaria amara, Pertusaria pertusa, Physconia enteroxantha, Protoparmelia oleagina, Xanthomendoza ulophyllodes

References

Herk, C.M. van (2017) Monitoring van korstmossen in Drenthe, 1991-2016. Lichenologisch Onderzoeksbureau Nederland, Soest.



Bergvennen & Brecklenkampse Veld

Hotspot area: 191 ha

Species groups: Bryophytes

Natura 2000 site: Bergvennen & Brecklenkampse Veld

Province: Overijssel

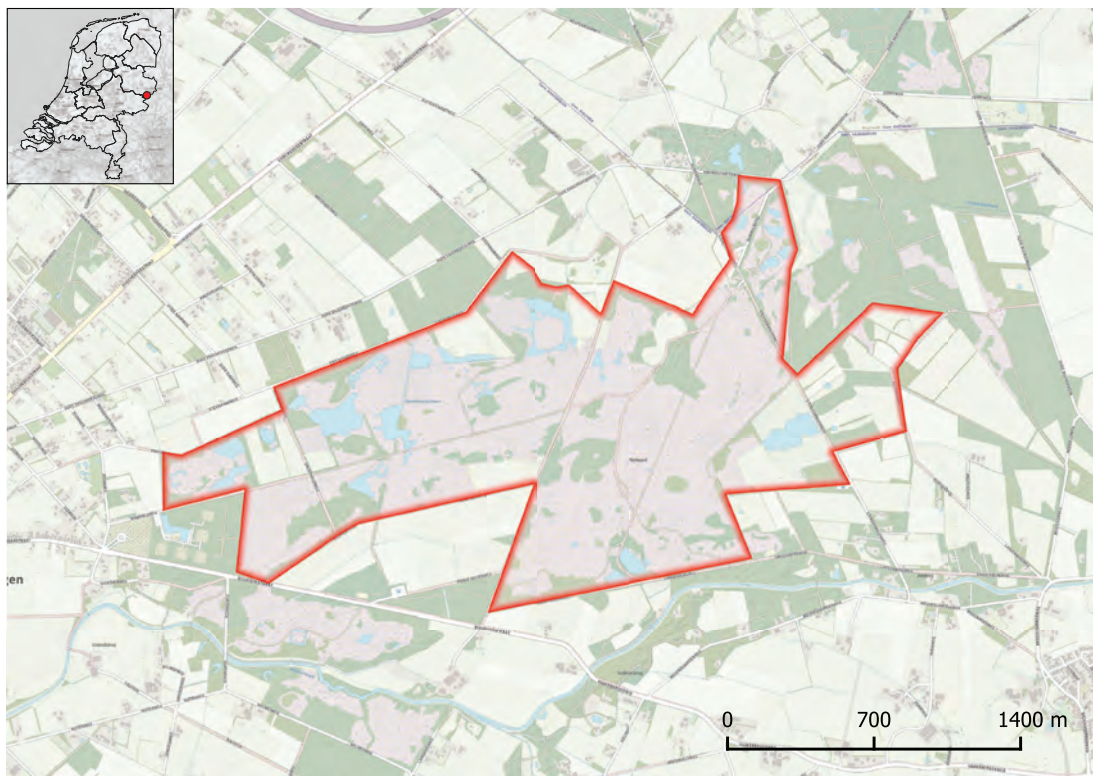
Criterion B(ii)

Red Listed bryophytes (26 species)

Calliergon giganteum, *Campylium stellatum*, *Dicranum bonjeanii*, *Drepanocladus sendtneri*, *Hamatocaulis vernicosus*, *Pseudocalliergon lycopodioides*, *Scorpidium scorpioides*, *Sphagnum molle*, *Trematodon ambiguus*, *Warnstorfia exannulata*

References

Zielman, H.R., E.J. Weeda & F. Bos (1993) De najaars-excursie 1992 in Noordoost-Twente. (Addendum 33:03). *Buxbaumiella* 32: 41-56.



Buurserzand

Hotspot area: 351 ha

Natura 2000 site: Buurserzand & Haaksbergerveen

Species groups: Bryophytes

Province: Overijssel

Criterion B(ii)

Red Listed bryophytes (34 species)

Campylopus brevipilus, Cephalozia macrostachya, Cladopodiella fluitans, Cladopodiella francisci, Odontoschisma denudatum, Scorpidium scorpioides, Sphagnum capillifolium, Sphagnum molle, Trematodon ambiguus, Warnstorfia exannulata



Cemeteries Bergklooster & Kranenburg

Hotspot area: 24 ha

Species groups: Lichens

Natura 2000 site: -

Province: Overijssel

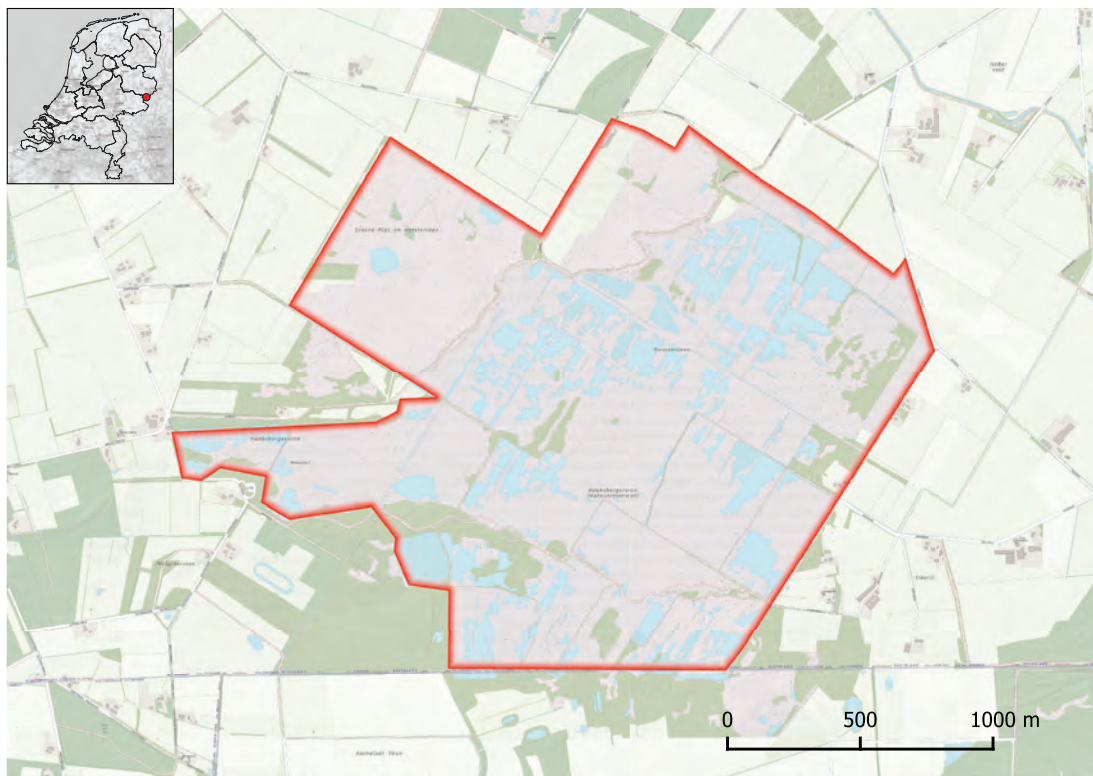
Criterion B(iii)

Historical buildings and cemeteries (Red Listed lichens) (10 species)

Fuscidea praeruptorum, *Hypogymnia physodes*, *Lathagrium fuscovirens*, *Lecanora orosthea*, *Peltigera canina*, *Placynthium nigrum*, *Porpidia macrocarpa*, *Rhizocarpon geographicum*, *Xanthoparmelia conspersa*

References

Aptroot, A., S. Bakker, C.M. van Herk & J.L. Spier (1994) Lichenen en mossen op begraafplaatsen in en rond Zwolle. *Buxbaumiella* 33: 47-50.



Haaksbergerveen

Hotspot area: 354 ha

Natura 2000 site: Buurserzand & Haaksbergerveen

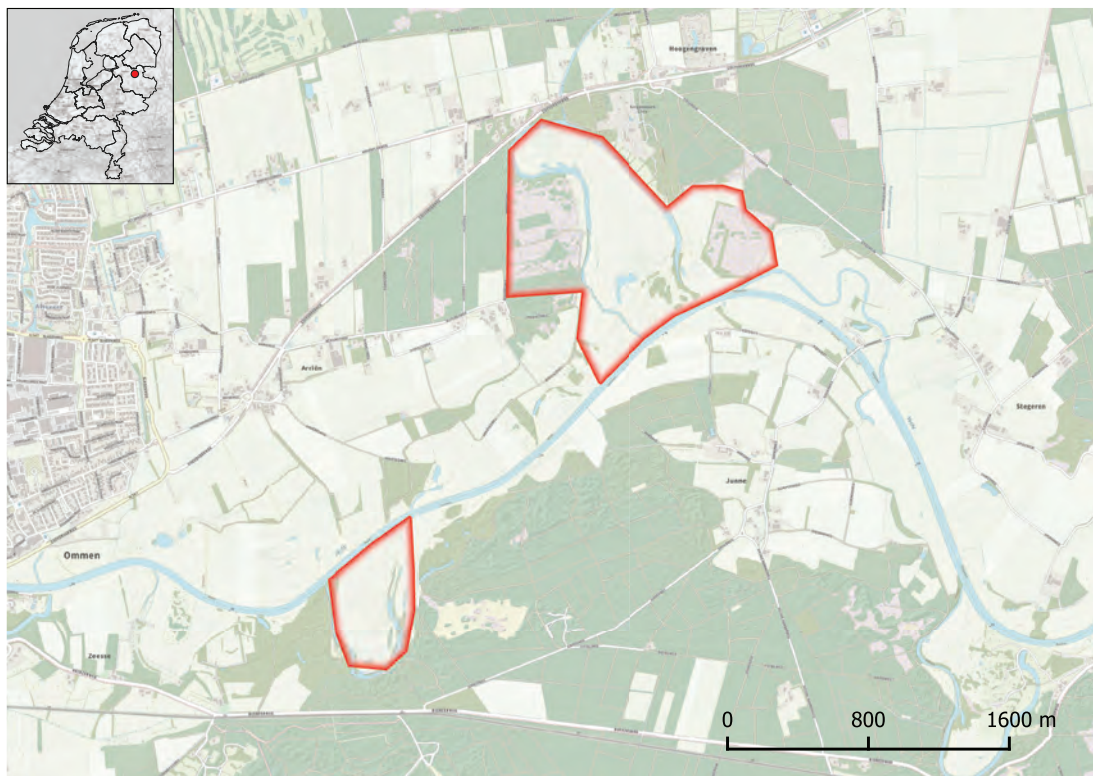
Species groups: Bryophytes

Province: Overijssel

Criterion B(i)

Bryophytes of acidic peat bogs (23 species)

Cephalozia macrostachya, *Cephaloziella elachista*,
Cladopodiella fluitans, *Kurzia pauciflora*, *Sphagnum*
capillifolium, *Sphagnum flexuosum*, *Sphagnum*
riparium, *Sphagnum rubellum*, *Sphagnum russowii*,
Warnstorfia exannulata



Junner Koeland & Arriër Koeland

Hotspot area: 158 ha

Species groups: Mushrooms

Natura 2000 site: Vecht- en Beneden-Reggegebied

Province: Overijssel

Criterion B(i)

Hygrocybe grasslands (23 species)

Hygrocybe colemanniana, Hygrocybe flavipes, Hygrocybe glutinipes, Hygrocybe irrigata, Hygrocybe lacmus, Hygrocybe nitrata, Hygrocybe ovina, Hygrocybe phaeococcinea, Hygrocybe radiata, Hygrocybe reidii

References

Houter, A. (2016) Binnenlandse werkweek Salland 23-30 oktober 2015. Coolia 59: 145-159.

Putte, A. van der (2012) De excursies in 2011. Coolia 55: 157-170.

Ruiter, H.W. (2005) Stroomdalflora in het dal van de Overijsselse Vecht, hoelang nog? De Levende Natuur 106: 162-165.



Lemselermaten

Hotspot area: 58 ha

Natura 2000 site: Lemselermaten

Species groups: Plants

Province: Overijssel

Criterion B(i)

Vascular plants of heathlands, rich fens and mires
(67 species)

Carex diandra, *Carex hostiana*, *Carex pulicaris*, *Dactylorhiza majalis* subsp. *majalis*, *Eleocharis quinqueflora*, *Eriophorum latifolium*, *Juncus alpinoarticulatus* subsp. *alpinoarticulatus*, *Pinguicula vulgaris*, *Trichophorum cespitosum* subsp. *germanicum*, *Valeriana dioica*



Lonnekerberg

Hotspot area: 3.2 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Overijssel

Criterion B(i)

Mushrooms of coniferous forests (114 species)

Cortinarius camphoratus, Cortinarius malachius, Cortinarius spilomeus, Exidia pithya, Gomphidius maculatus, Mycena vulgaris, Pluteus atromarginatus, Postia ptychogaster teleomorf, Suillus cavipes f. aureus, Tricholoma psammopus

References

Jagers, M. (2009) Een bergkwartet. Coolia 52: 32-35.

Putte, A. van der (2010) De excursies van 2009. Coolia 53: 186-204.



National Park Weerribben-Wieden

Hotspot area: 9155 ha

Natura 2000 site: De Wieden, Weerribben

Species groups: Mushrooms, Bryophytes, Plants

Province: Overijssel

Criterion B(i)

Bryophytes of marshland and wet grasslands (37 species)

Calliergon giganteum, *Campyliadelphus elodes*, *Campylium stellatum*, *Dicranum bonjeanii*, *Hamatocaulis vernicosus*, *Riccardia multifida*, *Scorpidium cossonii*, *Scorpidium scorpioides*, *Sphagnum contortum*, *Sphagnum teres*

Mushrooms of fens, marshes and river banks (20 species)

Entoloma albotomentosum, *Epithele typhae*, *Galerina paludosa*, *Galerina tibiicystis*, *Gloiocephala menieri*, *Hygrocybe coccineocrenata*, *Lichenomphalia umbellifera*, *Lyophyllum palustre*, *Omphalina gerardiana*, *Psathyrella typhae*

Vascular plants of heathlands, rich fens and mires (78 species)

Carex buxbaumii, *Eriophorum gracile*, *Hammarbya paludosa*, *Huperzia selago*, *Potamogeton alpinus*

Criterion B(ii)

Red Listed bryophytes (48 species)

Calliergon giganteum, *Campylium stellatum*, *Dicranum bonjeanii*, *Hamatocaulis vernicosus*, *Scorpidium scorpioides*, *Sphagnum capillifolium*, *Sphagnum contortum*, *Sphagnum flexuosum*, *Sphagnum rubellum*, *Sphagnum teres*

Red Listed vascular plants (80 species)

Calamagrostis stricta, *Carex aquatilis*, *Carex diandra*, *Cladium mariscus*, *Euphorbia palustris*, *Juncus filiformis*, *Liparis loeselii*, *Platanthera bifolia*, *Sparganium natans*, *Utricularia intermedia*

References

- Chrispijn, R. (1995) In het rietland deel 1 - Jonen. *Coolia* 38: 119-125.
- Cusell, C., A.M. Kooijman I. Mettrop & L. Lamers (2013) Natura 2000 Kennislacunes in De Wieden & De Weerribben. Directie Kennis & Innovatie, Ministerie van Economische Zaken, Landbouw en Innovatie, Den Haag.
- Tooren, B.F. van & H.J. During (1992) Het voorjaarsweekend 1991 naar de Wieden. *Buxbaumiella* 28: 32-48.
- Tweel, M.J. van, D.J. Bokeloh, C. Cusell, A.M. Kooijman, R. Martens, I.S. Mettrop, T. Neijmeijer & L.B. Sparrius (2015) Ontwikkeling van Geel schorpioenmos in de Meppelerdieplanden. *De Levende Natuur* 116: 158-162.
- Vries, B. de (1993) Begin en eind van het magere jaar 1991. *Coolia* 36: 1-11.



Witte Veen

Hotspot area: 290 ha

Natura 2000 site: Witte Veen

Species groups: Bryophytes

Province: Overijssel

Criterion B(i)

Bryophytes of acidic peat bogs (21 species)

Cephalozia macrostachya, *Cephaloziella elachista*,
Cladopodiella fluitans, *Sphagnum capillifolium*,
Sphagnum flexuosum, *Sphagnum majus*, *Sphagnum*
papillosum, *Sphagnum rubellum*, *Sphagnum russowii*,
Sphagnum tenellum



Beekbergerwoud

Hotspot area: 103 ha

Natura 2000 site: -

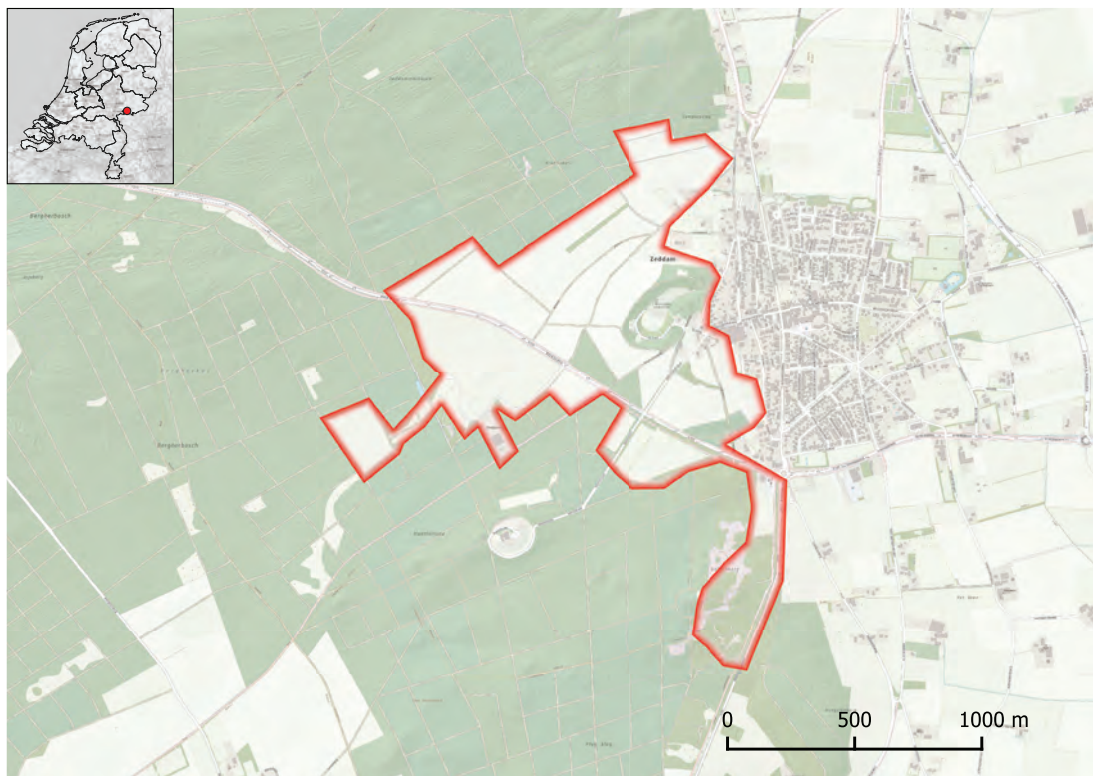
Species groups: Bryophytes

Province: Gelderland

Criterion B(i)

Bryophytes of damp soil (24 species)

Bryum algovicum, *Bryum intermedium*, *Bryum knowltonii*, *Bryum microerythrocarpum*, *Fossombronia incurva*, *Physcomitrella patens*, *Pleuridium acuminatum*, *Pohlia lescuriana*, *Riccia beyrichiana*, *Trematodon ambiguus*



Bergherbosch

Hotspot area: 138 ha

Natura 2000 site: -

Species groups: Plants

Province: Gelderland

Criterion B(iii)

Arable weeds (27 species)

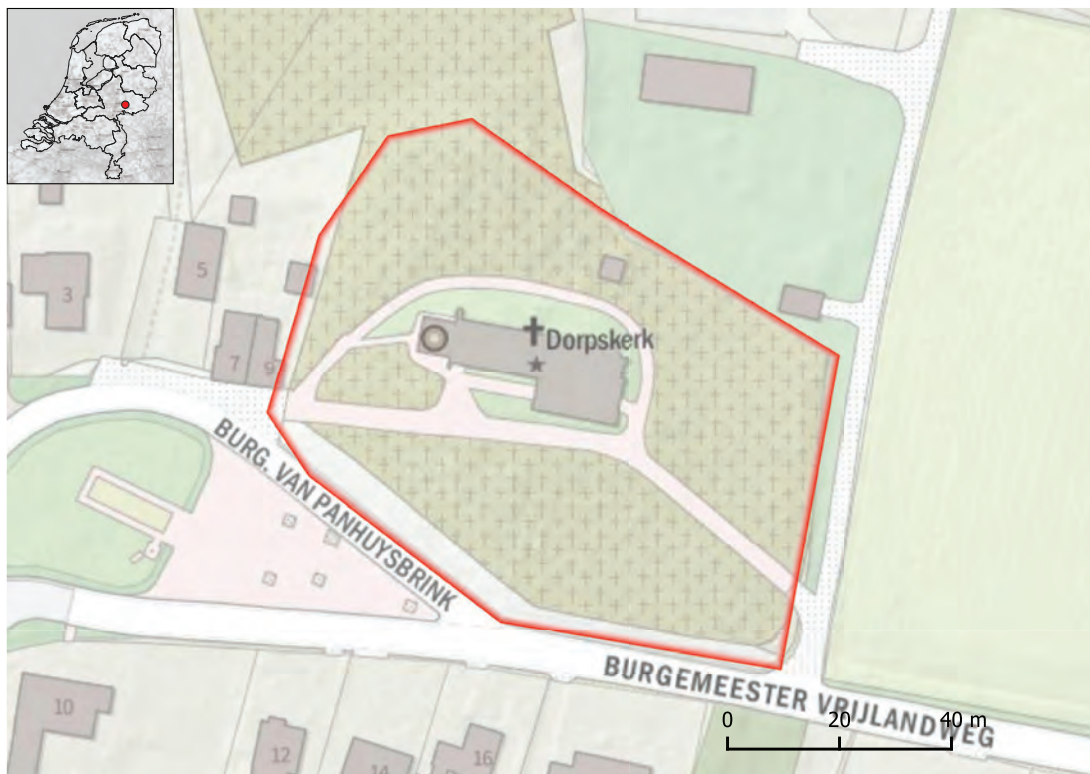
Anthemis arvensis, *Anthoxanthum aristatum*, *Aphanes arvensis*, *Arnoseris minima*, *Galeopsis segetum*, *Hypochaeris glabra*, *Misopates orontium*, *Myosotis stricta*, *Stachys arvensis*, *Vaccaria hispanica*

References

Eichhorn, K.A.O. (2013) Ecologie en beheer van kruidenrijke akkers op de zware en basische grondsoorten. Eichhorn Ecologie & Natuurmonumenten.

Eichhorn, K.A.O. (2016) Ecologie en beheer van kruidenrijke graslanden op de zandgronden. Eichhorn Ecologie & Natuurmonumenten.

Vereniging Natuurmonumenten (2006) Het Natuurboek. De gebieden van Natuurmonumenten. Natuurmonumenten.



Cemetery and church Hoog-Keppel

Hotspot area: 0.7 ha

Species groups: Lichens

Natura 2000 site: -

Province: Gelderland

Criterion B(iii)

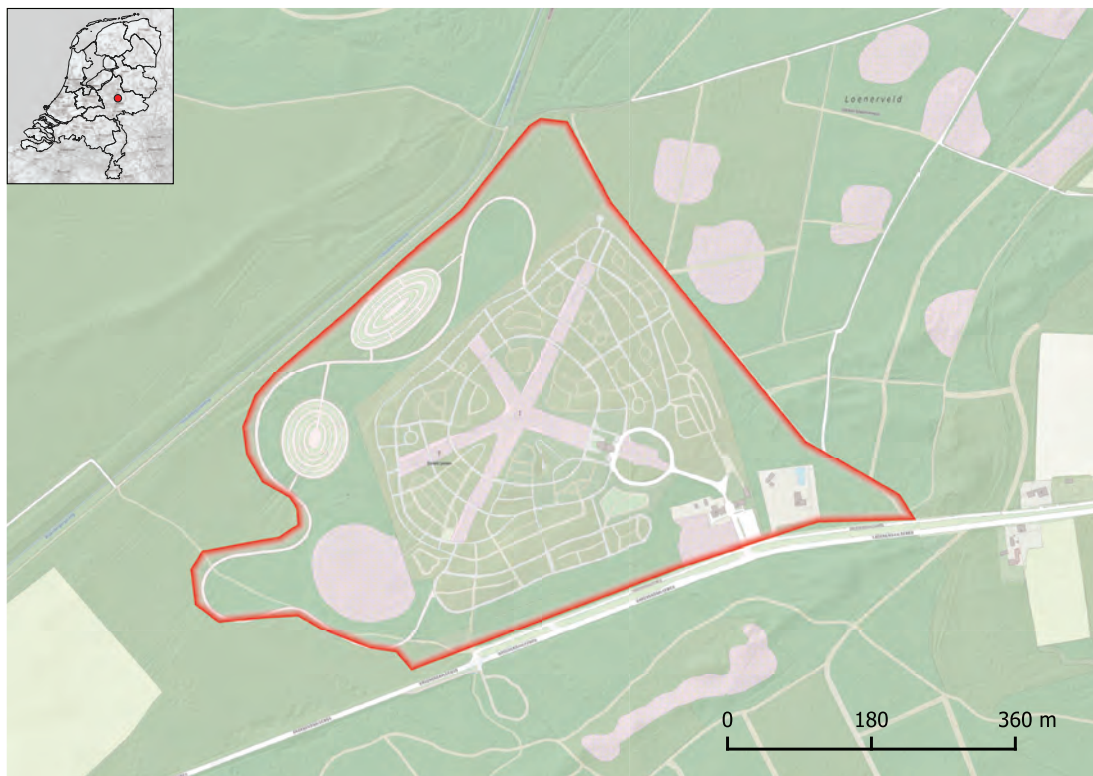
Historical buildings and cemeteries (Red Listed lichens) (6 species)

Lecanora conizaeoides, *Lecanora sulphurea*, *Leproplaca chrysodeta*, *Placynthium nigrum*, *Porpidia macrocarpa*, *Trapelia glebulosa*

References

Sparrius, L.B. (2000) Korstmossen op oude kerken in Nederland. *Buxbaumiella* 52: 32-36.

Sparrius, L.B., A. Aptroot, C.M. van Herk & J.L. Spier (2000) Korstmossen van Gelderland en aangrenzend Flevoland en van soortenrijke kerkmuren in de IJsselvallei. *Buxbaumiella* 53: 33-41.



Cemetery Ereveld Loenen

Hotspot area: 31 ha

Natura 2000 site: Veluwe

Species groups: Mushrooms

Province: Gelderland

Criterion B(iii)

Cemeteries (Red Listed mushrooms) (46 species)

Cantharellula umbonata, *Cantharellus cibarius*,
Chroogomphus rutilus, *Gymnopilus odini*, *Helvella*
leucomelaena, *Mycenella salicina*, *Peziza subviolacea*,
Pseudoclitocybe cyathiformis, *Russula turci*, *Tricholoma albobrunneum*



Cemetery Soerenseweg, Apeldoorn

Hotspot area: 14 ha

Natura 2000 site: -

Species groups: Bryophytes and Mushrooms

Province: Gelderland

Criterion B(i)

Bryophytes of heaths and forested heaths (24 species)

Barbilophozia barbata, *Barbilophozia hatcheri*, *Cephaloziella hampeana*, *Lophozia bicrenata*, *Marsupella emarginata*, *Nardia scalaris*, *Pogonatum aloides*, *Pogonatum nanum*, *Scapania compacta*, *Scapania curta*

References

Brouwer, E. & G.J. Ilbrink (2004) Oude begraafplaatsen aan de zuidoostelijke Veluwerand. *Coolia* 47: 12-16.

Kreeftenberg, H.G. (2017) Bryologisch rijke begraafplaatsen in de gemeente Apeldoorn. *Buxbaumiella* 110: 12-23.

Criterion B(iii)

Cemeteries (Red Listed mushrooms) (43 species)

Astraeus hygrometricus, *Cantharellus cibarius*, *Coltricia perennis*, *Gomphidius glutinosus*, *Hygrocybe virginea*, *Mycena zephirus*, *Plicaria endocarpoides*, *Porodaedalea pini*, *Tapinella atrotomentosa*, *Tricholoma columbetta*



Cortenoever

Hotspot area: 332 ha

Natura 2000 site: Rijntakken

Species groups: Plants

Province: Gelderland

Criterion B(iii)

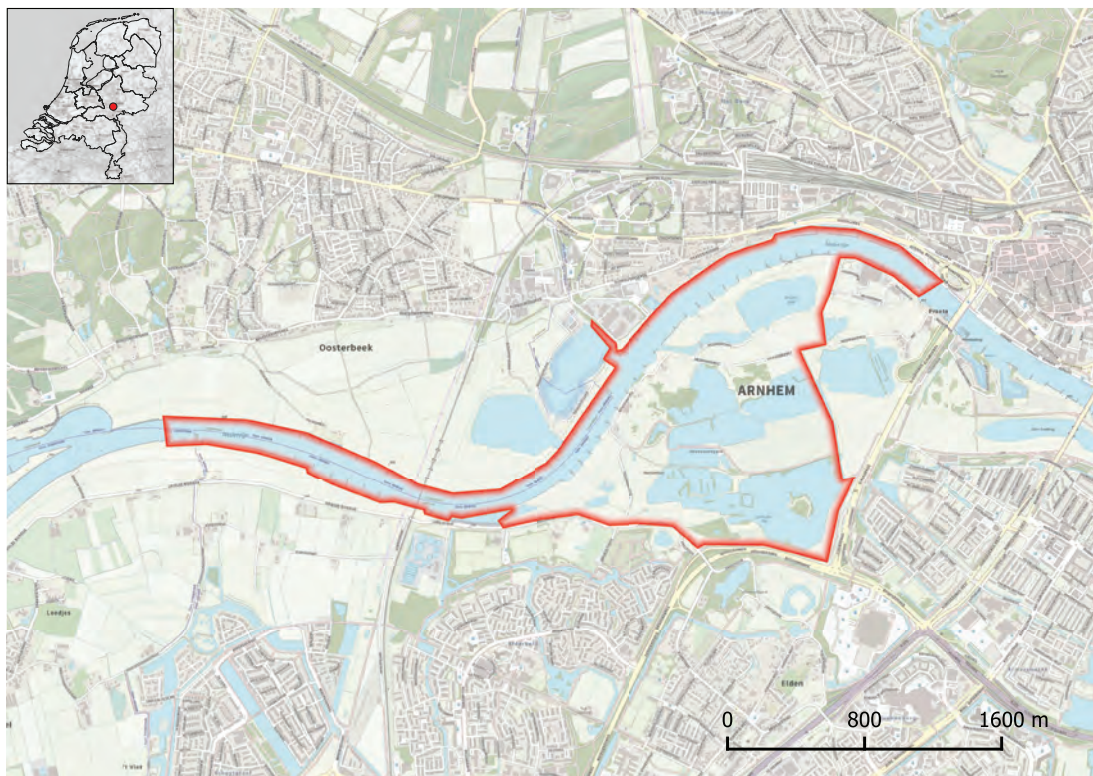
Arable weeds (30 species)

Aphanes arvensis, *Consolida regalis*, *Legousia hybrida*, *Legousia speculum-veneris*, *Lithospermum arvense*, *Odontites vernus* subsp. *vernus*, *Ranunculus arvensis*, *Valerianella rimosa*, *Veronica praecox*, *Veronica triphylos*

References

Haveman, R. (1997) Akkerreservaten in Nederland. Botanische kwaliteit en beheer. IKC Natuurbeheer.

Peters, B. & G. Kurstjens (2012) Rijn in Beeld. Natuurontwikkeling langs de grote rivieren. Deel 3. De IJssel.



Dams & dykes Nederrijn

Hotspot area: 282 ha

Natura 2000 site: -

Species groups: Plants, Bryophytes

Province: Gelderland

Criterion B(i)

Vascular plants of nutrient-rich pioneer habitats (69 species)

Bidens radiata, *Chenopodium pumilio*, *Cyperus fuscus*, *Inula britannica*, *Limosella aquatica*, *Mentha suaveolens*, *Potentilla supina*, *Pulicaria vulgaris*, *Rorippa austriaca*, *Tephrosia palustris*

Bryophytes on rocky shores (15 species)

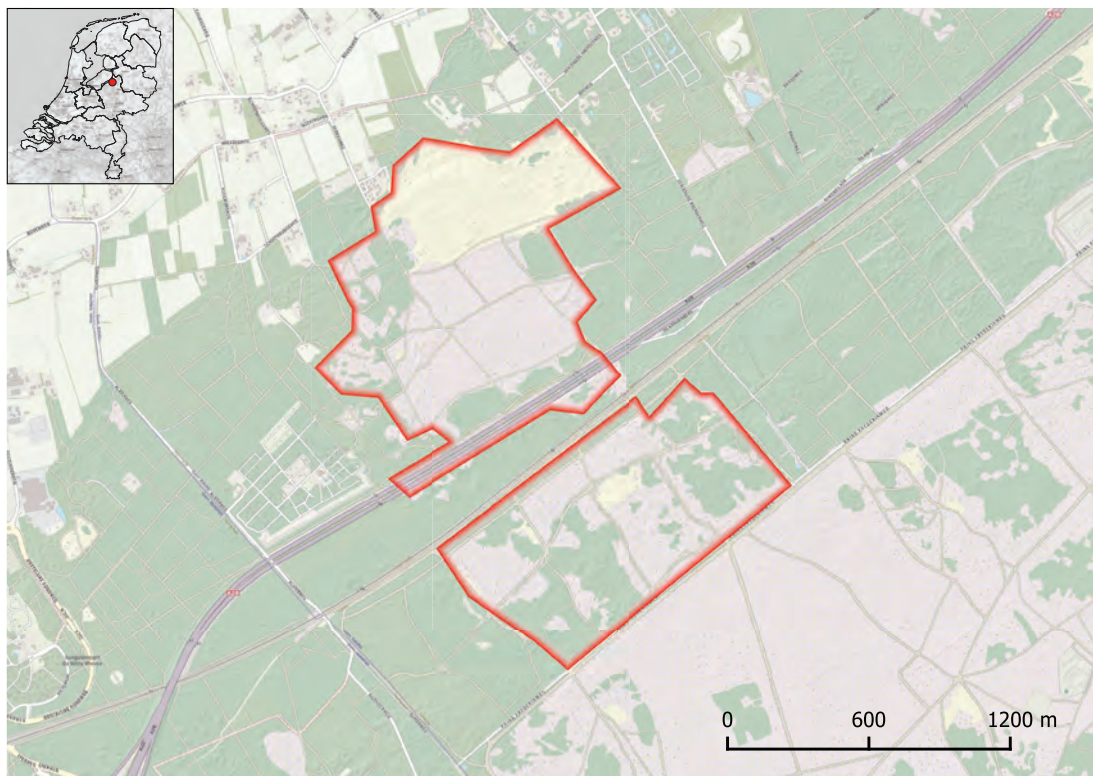
Amblystegium tenax, *Brachythecium plumosum*, *Cinclidotus danubicus*, *Cinclidotus fontinaloides*, *Cinclidotus riparius*, *Cirriphyllum crassinervium*, *Didymodon nicholsonii*, *Didymodon sinuosus*, *Fissidens arnoldii*, *Octodictyon fontanum*

Natuurontwikkeling langs de grote rivieren. Deel 2. De Nederrijn.

References

Dort, K.W. van & M. Zwartz (2009) Blad- en levermos-
sen van Meinerswijk. *Buxbaumia* 82: 32-37.

Kurstjens, G. & B. Peters (2011) Rijn in Beeld.



De Zoom & Doornspijkse Heide

Hotspot area: 215 ha

Natura 2000 site: Veluwe

Species groups: Lichens

Province: Gelderland

Criterion B(i)

Lichens in heaths and inland dunes (42 species)

Cladonia borealis, *Cladonia monomorpha*, *Cladonia pulvinata*, *Cladonia strepsilis*, *Cladonia verticillata*, *Dibaeis baeomyces*, *Micarea leprosula*, *Placynthiella oligotropha*, *Placynthiella uliginosa*, *Stereocaulon condensatum*

References

Sparrius, L.B., A. Aptroot & C.M. van Herk (2001)
Landelijk Meetnet Korstmossen. Inhoudelijke rapportage 2000. *Buxbaumiella* 58: 1-44.



Dyke Arkemheen-Putten

Hotspot area: 11 ha

Natura 2000 site: Arkemheen, Veluwerandmeren

Species groups: Lichens

Province: Gelderland

Criterion B(i)

Lichens on rock (157 species)

Aspicilia grisea, *Aquacidia antricola*, *Aquacidia trachona*, *Parmelia discordans*, *Pertusaria lactea*, *Ramalina siliquosa*, *Rhizocarpon geographicum*, *Scytinium teretiusculum*, *Verrucaria aquatilis*, *Xanthoparmelia protomatrae*

Criterion B(ii)

Red Listed lichens (45 species)

Anaptychia runcinata, *Aquacidia viridifarinsa*, *Circinaria leproscens*, *Cladonia pyxidata*, *Lecanora rupicola*, *Ochrolechia parella*, *Parmelia omphalodes*, *Pertusaria corallina*, *Pertusaria lactescens*, *Xanthoparmelia mougeotii*

References

Hagoort, W. (2018) Het hoofd boven water. De geschiedenis van de Gelderse zeepolder Arkemheen 1356-1916. Nabij Producties.

Toetenel, W.J. & Th. Van Trigt (2016) De Zuiderzeedijk bij Nijkerk, een verdwijnend korstmospaardijsje. *Buxbaumiella* 106: 49-53.

van Herk, C.M., A. Aptroot, L.B. Sparrius & L.L. Soldaat (2007) Landelijk meetnet korstmossen (NEM), inhoudelijke rapportage 2006. BLWG-rapport 6: 1-47.



Ewijkse plaat

Hotspot area: 4183 ha

Natura 2000 site: Rijntakken

Species groups: Plants, Bryophytes

Province: Gelderland

Criterion B(i)

Vascular plants of nutrient-rich pioneer habitats (70 species)

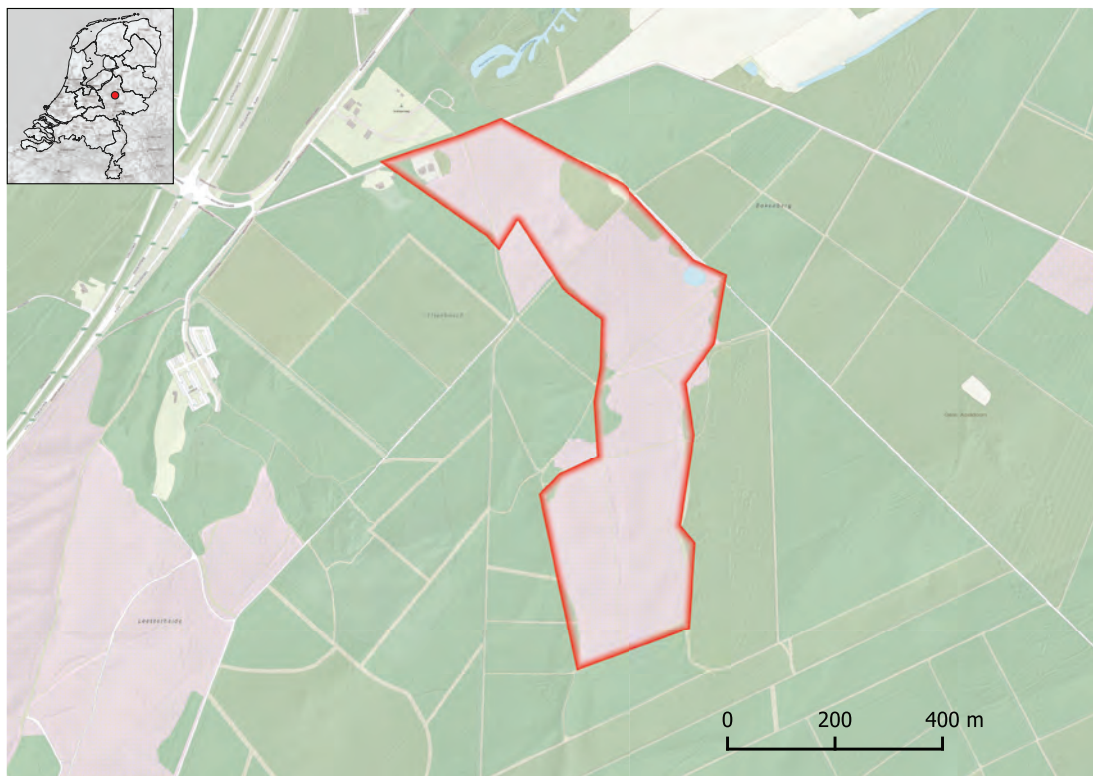
Bidens radiata, *Cyperus fuscus*, *Eleocharis ovata*, *Gratiola officinalis*, *Leersia oryzoides*, *Mentha pulegium*, *Mentha suaveolens*, *Potentilla supina*, *Pulicaria vulgaris*, *Rorippa austriaca*

Bryophytes on rocky shores (16 species)

Brachythecium plumosum, *Cinclidotus danubicus*, *Cinclidotus fontinaloides*, *Cinclidotus riparius*, *Cirriphyllum crassinervium*, *Didymodon nicholsonii*, *Didymodon sinuosus*, *Fissidens arnoldii*, *Octodiceria fontanum*, *Schistidium platyphyllum*

References

Kuiters, L. & S. Vreugdenhil (2005) Vestiging van hardhoutoibos soorten in de Beuningse uiterwaarden. *De Levende Natuur* 106: 40-46.



Flipsbos

Hotspot area: 25 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes

Province: Gelderland

Criterion B(i)

Bryophytes of heaths and forested heaths (22 species)

Barbilophozia barbata, Barbilophozia kunzeana, Cephaloziella hampeana, Dicranum spurium, Dipl-
ophyllum obtusifolium, Ditrichum heteromallum,
Ditrichum lineare, Lophozia ventricosa, Pogonatum
aloides, Pogonatum nanum



Goilberdinger- & Everdingerwaard

Hotspot area: 252 ha

Species groups: Plants

Natura 2000 site: -

Province: Utrecht & Gelderland

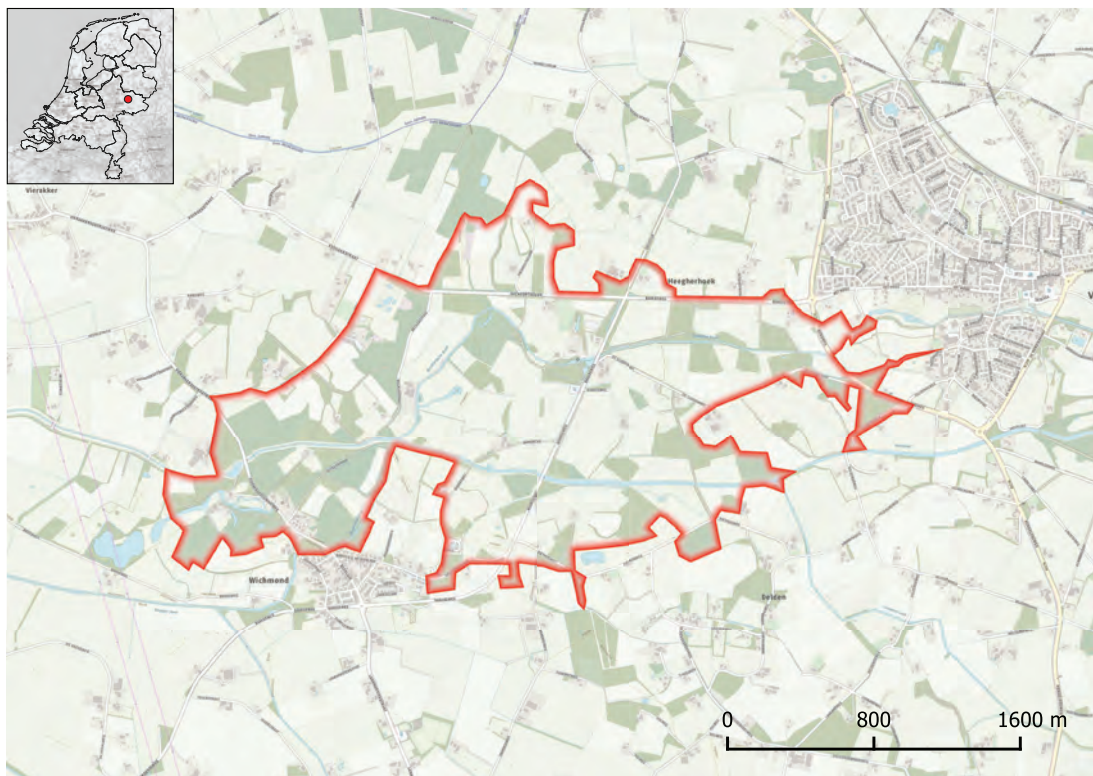
Criterion B(i)

Vascular plants of nutrient-rich grasslands (68 species)

Briza media, *Bromus racemosus*, *Carum carvi*, *Cirsium oleraceum*, *Fritillaria meleagris*, *Geranium pratense*, *Knautia arvensis*, *Peucedanum carvifolia*, *Rumex thyrsiflorus*, *Sanguisorba officinalis*

References

Feijen, M. (2010) Beheerplan Everdingerwaard 2010-2020. Stichting Het Utrechts Landschap.



Hackfortsche bossen

Hotspot area: 443 ha

Natura 2000 site: -

Species groups: Plants

Province: Gelderland

Criterion B(iii)

Old forests with high native woody plant diversity
(58 species)

Corylus avellana, *Crataegus laevigata*, *Crataegus x macrocarpa*, *Daphne mezereum*, *Mespilus germanica*, *Quercus x rosacea*, *Rosa balsamica*, *Rosa corymbifera*, *Rosa pseudoscabriuscula*, *Rosa tomentosa*

References

Bijlsma, R.J., H.G.J.M. Koop & E.J. Weeda (2019) Het eiken-haagbeukenbos in Nederland: een bedreigde en uit beeld geraakt wisselvochtig ecosysteem. *De Levende Natuur* 120: 109-115.

Maes, B. & C. Rövekamp (2002) Inheemse bomen en struiken in de Graafschap. Ecologisch Adviesbureau Maes, Utrecht.



Highway gutters A50

Hotspot area: 5.5 ha

Natura 2000 site: Veluwe

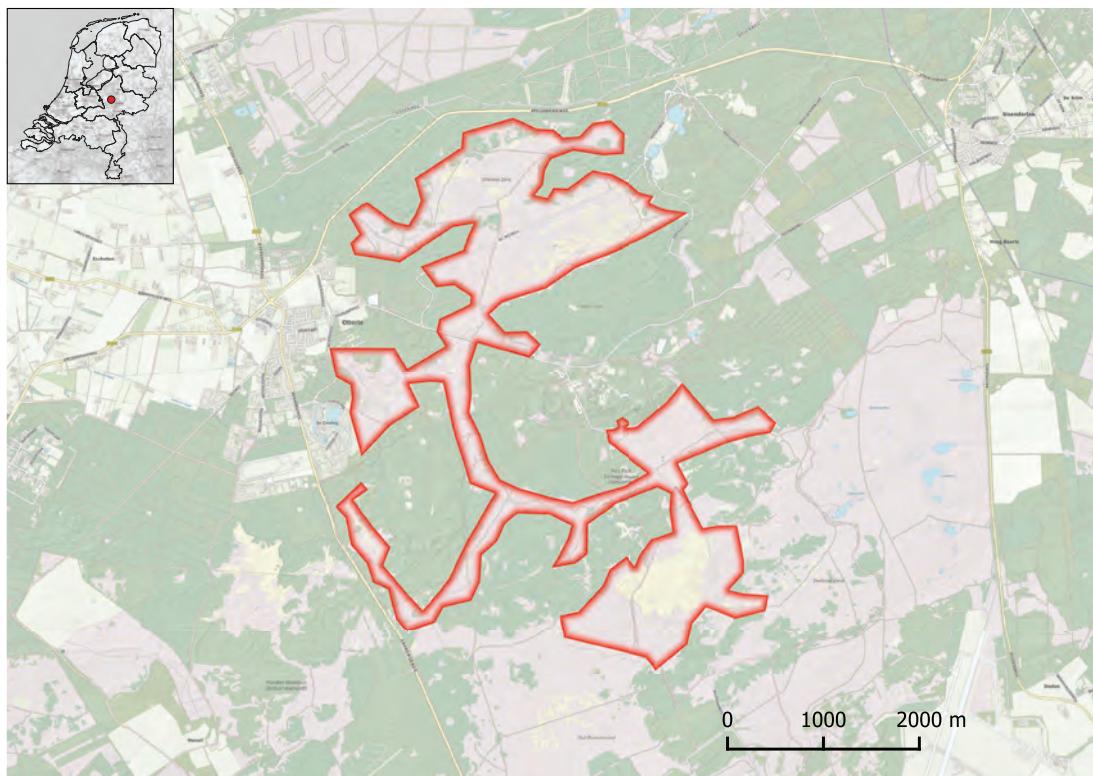
Species groups: Bryophytes

Province: Gelderland

Criterion B(i)

Pioneer bryophytes on acidic rock (4 species)

Grimmia trichophylla, Hedwigia ciliata, Hedwigia stellata, Racomitrium aciculare



Inland dunes De Hoge Veluwe

Hotspot area: 866 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes, Lichens

Province: Gelderland

Criterion B(i)

Pioneer bryophytes on calcareous rock (14 species)

Grimmia anodon, *Grimmia orbicularis*, *Grimmia pulvinata*, *Gyroweisia tenuis*, *Orthotrichum cupulatum*, *Rhynchostegiella tenella*, *Schistidium crassipilum*, *Seligeria recurvata*, *Syntrichia montana*, *Tortella tortuosa*

Lichens in heaths and inland dunes (47 species)

Baeomyces rufus, *Cladonia borealis*, *Cladonia monomorpha*, *Cladonia pulvinata*, *Cladonia strepsilis*, *Cladonia verticillata*, *Diploschistes muscorum*, *Micarea leprosula*, *Pycnothelia papillaria*, *Stereocaulon condensatum*

References

- Bijlsma, R.J. (1987) De eendagsexcursie naar de Hoge Veluwe (1984). *Buxbaumiella* 20: 20-23.
- Sparrius, L.B., A. Aptroot & C.M. van Herk (1999) Verslag korstmossenexcursie naar de Hoge Veluwe op 1 november 1998. *Buxbaumiella* 48: 37-41.



Kornburgerveen, Vragenderveen & Meddose Veen

Hotspot area: 376 ha

Species groups: Bryophytes

Natura 2000 site: Kornburgerveen

Province: Gelderland

Criterion B(i)

Vascular plants of heathlands, rich fens and mires
(72 species)

Andromeda polifolia, *Carex appropinquata*, *Carex diandra*, *Eriophorum vaginatum*, *Pedicularis palustris*, *Pinguicula vulgaris*, *Platanthera bifolia*, *Rhynchospora alba*, *Vaccinium uliginosum*, *Valeriana dioica*

Criterion B(ii)

Red Listed bryophytes (29 species)

Calliergon giganteum, *Cephalozia macrostachya*, *Cladopodiella fluitans*, *Dicranum bonjeanii*, *Sphagnum capillifolium*, *Sphagnum contortum*, *Sphagnum flexuosum*, *Sphagnum girgensohnii*, *Sphagnum molle*, *Thuidium delicatulum*



Laag Keppel

Hotspot area: 43 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Gelderland

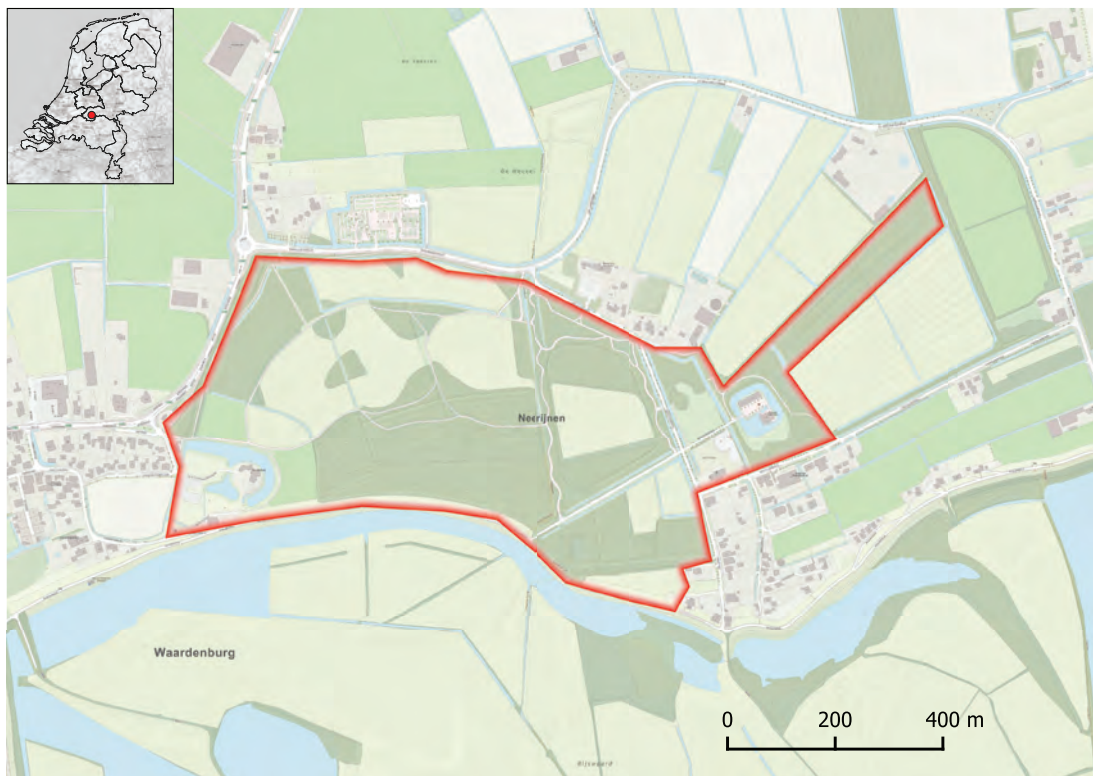
Criterion B(i)

Bryophytes of bare tilled land (24 species)

Barbula convoluta, *Barbula unguiculata*, *Bryum argenteum*, *Bryum barnesii*, *Ephemerum recurvifolium*, *Riccia bifurca*, *Riccia glauca*, *Tortula modica*, *Weissia brachycarpa*, *Weissia longifolia*

References

Hertog, A.J. (2011) Het deelhok als nieuwe basiseenheid voor floristische inventarisatie : drie decennia planten- en mossenonderzoek in atlasblok 4017-Hummelo & Keppel. Hogeschool Van Hall Larenstein.



Landgoed Waardenburg & Neerijnen

Hotspot area: 52 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Gelderland

Criterion B(i)

Mushrooms of swamp woodland (259 species)

Amanita crocea, *Amanita solitaria*, *Chamaemyces fracidus*, *Conocybe dumetorum*, *Cortinarius olivaceofuscus*, *Inocybe reisneri*, *Limacella guttata*, *Peziza succosella*, *Tricholoma orirubens*, *Xerula pudens*

Mushrooms of wooded elements in mosaic landscape (125 species)

Agaricus bohusii, *Amanita lividopallescens*, *Aureoboletus gentilis*, *Boletus aereus*, *Boletus impolitus*, *Boletus junquilleus*, *Boletus satanas*, *Cortinarius coalescens*, *Mycosphaerella podagrariae*, *Panus conchatus*

orirubens, *Xerula pudens*

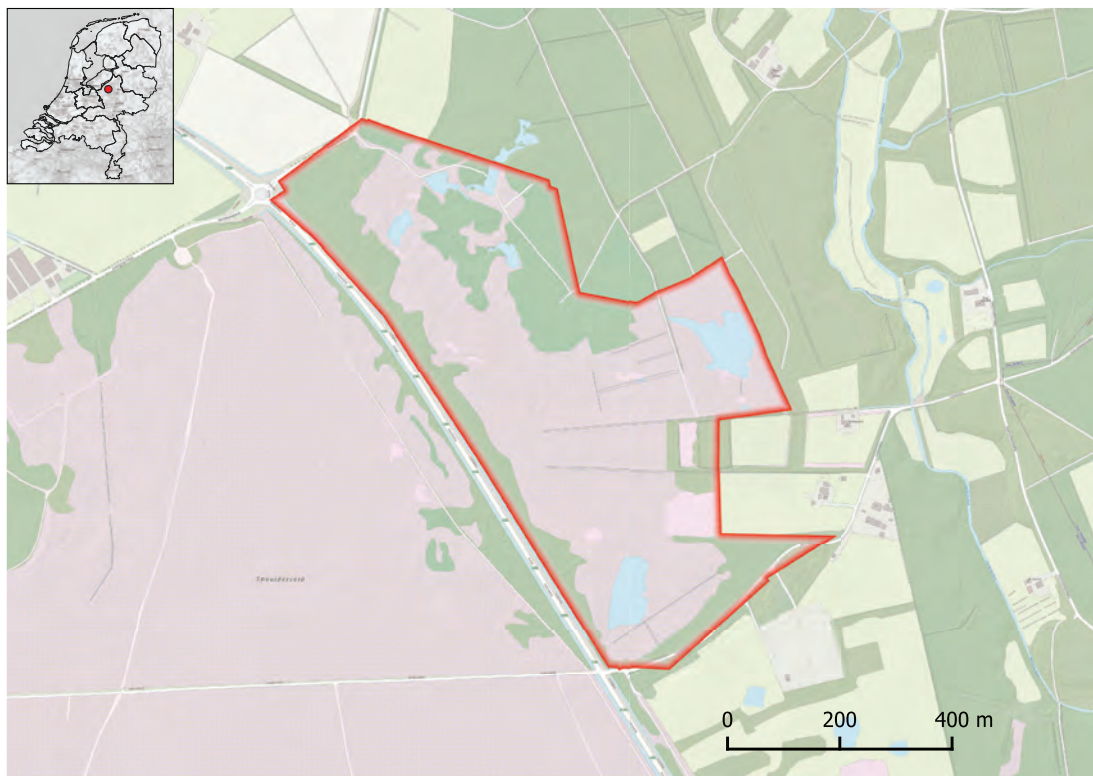
References

Benjaminsen, F. (1990) De N.M.V. op stap in 1989. *Coolia* 33: 69-74.

Criterion B(ii)

Red Listed macrofungi (195 species)

Agaricus bohusii, *Amanita lividopallescens*, *Amanita solitaria*, *Aureoboletus gentilis*, *Boletus aereus*, *Boletus satanas*, *Inocybe reisneri*, *Mycena crocata*, *Tricholoma*



Leemputten Staverden

Hotspot area: 43 ha

Natura 2000 site: Veluwe

Species groups: Plants, Bryophytes, Mushrooms

Province: Gelderland

Criterion B(i)

Vascular plants of heathlands, rich fens and mires
(70 species)

Centunculus minimus, *Eleocharis quinqueflora*, *Lycopodium clavatum*, *Potamogeton alpinus*, *Ranunculus ololeucos*, *Sparganium angustifolium*, *Sparganium erectum* subsp. *neglectum*, *Utricularia intermedia*

Mushrooms of heaths and inland dunes (12 species)

Clavaria argillacea, *Claviceps microcephala*, *Entoloma fernandae*, *Gymnopilus fulgens*, *Hypholoma elongatum*, *Hypholoma udum*, *Multiclavula vernalis*, *Mycena megalopora*, *Omphalina mutila*

Criterion B(ii)

Red Listed vascular plants (61 species)

Baldellia ranunculoides subsp. *ranunculoides*, *Carex hostiana*, *Carex pulicaris*, *Carlina vulgaris*, *Cicendia filiformis*, *Hypericum pulchrum*, *Lathyrus linifolius*,

Platanthera bifolia, *Radiola linoides*, *Sparganium natans*

Red Listed bryophytes (29 species)

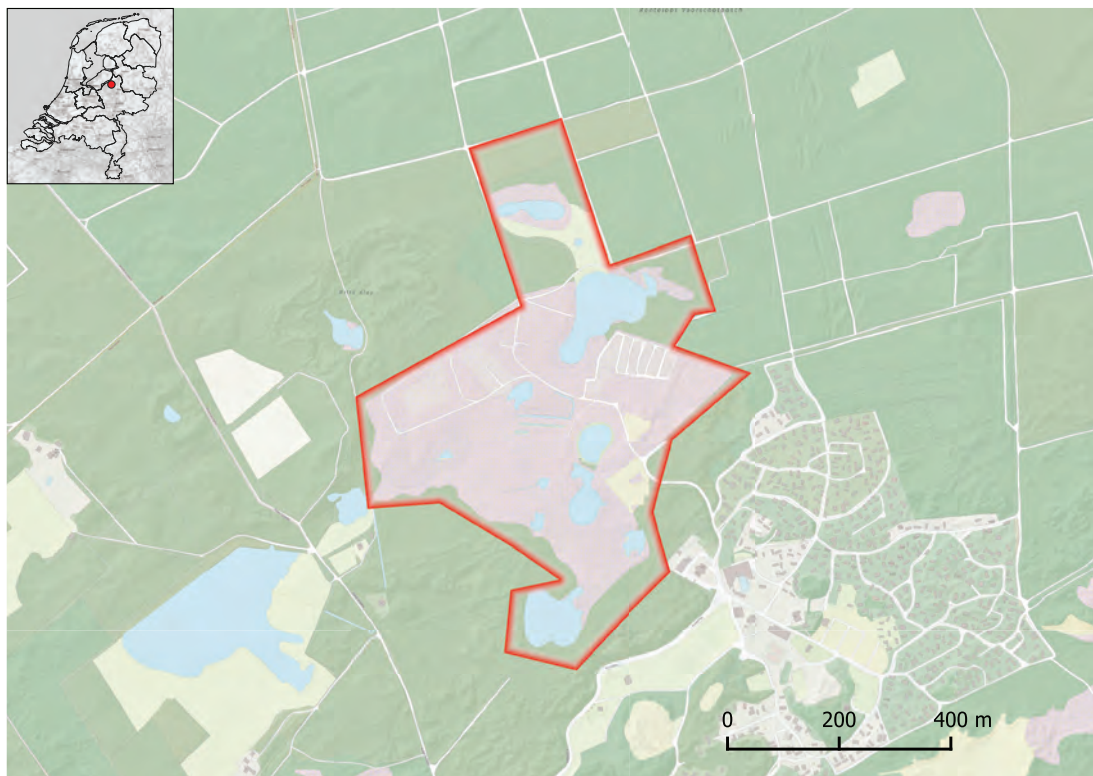
Campylium stellatum, *Campylopus brevipilus*, *Cephalozia macrostachya*, *Cladopodiella francisci*, *Preissia quadrata*, *Scapania nemorea*, *Sphagnum capillifolium*, *Sphagnum molle*, *Sphagnum rubellum*, *Warnstorfia exannulata*

References

Knol, R. (2019) Leemputten bij Staverden: een mycologisch paradijs. *Coolia* 62: 87-88.

Kortselius, M.J.H. (1992) Het najaarsweekend 1990 op de Noord-Veluwe. *Buxbaumiella* 27: 4-14.

Wouda, H.A. (2018) *De Leemputten bij Staverden*. Anoda Publishing.



Mosterdveen

Hotspot area: 33 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes

Province: Gelderland

Criterion B(i)

Bryophytes of acidic peat bogs (21 species)

Cephalozia macrostachya, *Cephaloziella elachista*, *Cladopodiella fluitans*, *Kurzia pauciflora*, *Odontschisma sphagni*, *Sphagnum capillifolium*, *Sphagnum magellanicum*, *Sphagnum majus*, *Sphagnum papillosum*, *Sphagnum rubellum*

References

Veen, P., G. van Dijk & M. Karsemeijer (2014) Het Mosterdveen: een doorstroomveen op het Veluwe-massief. *De Levende Natuur* 115: 177-183.

Criterion B(ii)

Red Listed bryophytes (22 species)

Barbilophozia barbata, *Cephalozia macrostachya*, *Cephaloziella elachista*, *Cladopodiella fluitans*, *Hypnum imponens*, *Kurzia pauciflora*, *Sphagnum capillifolium*, *Sphagnum majus*, *Sphagnum molle*, *Sphagnum rubellum*



Nijmegen, Staddijk

Hotspot area: 61 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Gelderland

Criterion B(i)

Mushrooms of farmland, parks, cities and roadsides
(95 species)

Byssomerulius corium, *Calvatia gigantea*, *Clathrus archeri*, *Coprinopsis cortinata*, *Coprinopsis lagopus*, *Coprinus comatus*, *Lepista nuda*, *Olla transiens*, *Polyporus squamosus*, *Valsa nivea*

References

Dam, N. & Jalink, L. (2001) Kroonjuwelen en andere mycologische snuisterijen 2. Het Nijmeegse park Staddijk. *Coolia* 44: 24-28.

Vries, B.W.L. de (1998) Uit de regio met mededelingen van districtcoördinatoren en verslagen van NMV-excursies. *Coolia* 41: 127-142.

Criterion B(ii)

Red Listed macrofungi (139 species)

Antrodiella onychoides, *Clavulinopsis subtilis*, *Cortinarius bivelus*, *Cortinarius lanatus*, *Dermoloma pseudocuneifolium*, *Entoloma byssisedum*, *Melanogaster broomeanus*, *Mycena meliigena*, *Peniophora laeta*, *Tricholoma acerbum*



Ooijpolder, Gendtsche polder & Millingerwaard

Hotspot area: 3530 ha

Natura 2000 site: Rijntakken

Species groups: Plants

Province: Gelderland

Criterion B(i)

Vascular plants of fresh water and river banks (129 species)

Chaerophyllum bulbosum, *Cuscuta gronovii*, *Cuscuta lupuliformis*, *Erysimum virgatum*, *Euphorbia palustris*, *Lepidium graminifolium*, *Lepidium latifolium*, *Potamogeton nodosus*, *Senecio sarracenicus*, *Silene baccifera*

Vascular plants of nutrient-rich grasslands (85 species)

Campanula patula, *Carum carvi*, *Cirsium eriophorum*, *Colchicum autumnale*, *Crepis paludosa*, *Orobancha minor*, *Peucedanum carvifolia*, *Rhinanthus alectorolophus*, *Silaum silaus*, *Tragopogon pratensis* subsp. *orientalis*

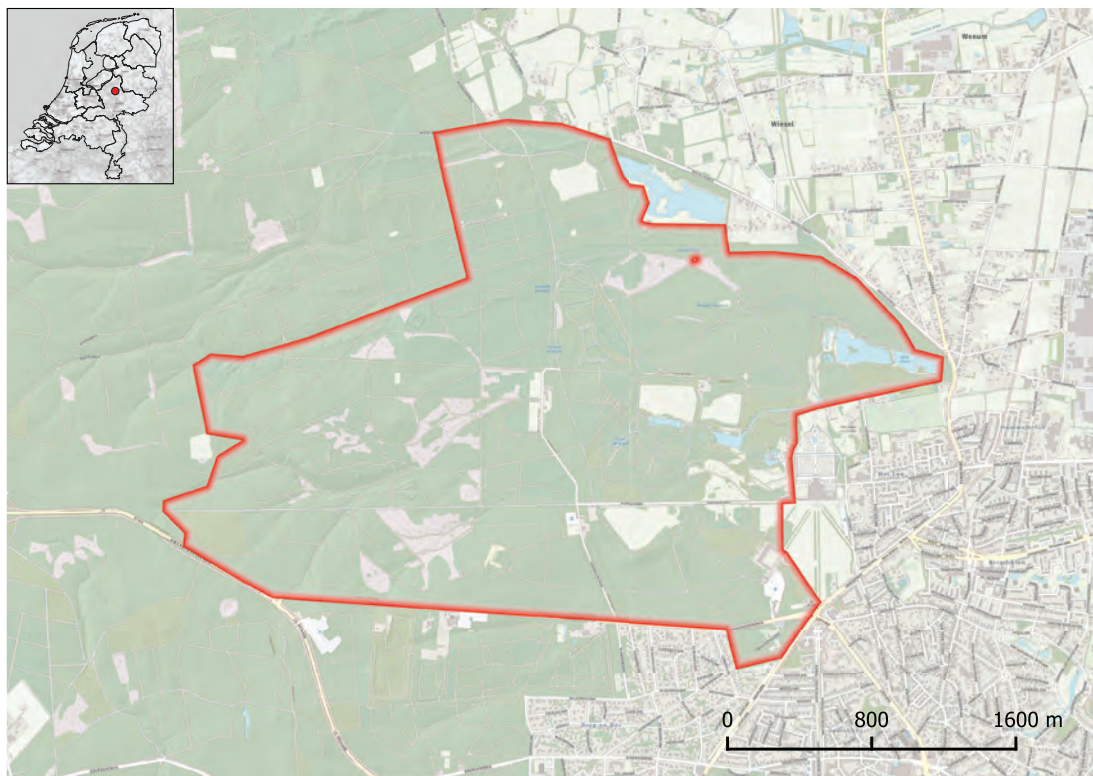
Vascular plants of nutrient-rich pioneer habitats (81 species)

Bidens radiata, *Carex vulpinoidea*, *Cyperus fuscus*,

Inula britannica, *Leersia oryzoides*, *Malva pusilla*, *Mentha pulegium*, *Potentilla supina*, *Pulicaria vulgaris*, *Rorippa austriaca*

References

Peters, B., G. Kurstjens & T. Teunissen (2004) De Flora van de Gelderse Poort : Een overzicht van bedreigde en beschermde soorten en een aanzet tot toekomstige monitoring. Flora- en Fauna werkgroep Gelderse Poort.



Palace park Het Loo

Hotspot area: 734 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes, Lichens

Province: Gelderland

Criterion B(i)

Bryophytes of nutrient poor forests (40 species)

Bryum bornholmense, *Calypogeia integristipula*, *Dicranum flagellare*, *Dicranum majus*, *Nowellia curvifolia*, *Ptilidium pulcherrimum*, *Ptilium crista-castrensis*, *Riccardia latifrons*, *Scapania nemorea*, *Sphagnum girgensohnii*

Forest lichens (122 species)

Chaenotheca chrysocephala, *Chaenotheca furfuracea*, *Chaenotheca stemonea*, *Chrysothrix candelaris*, *Graphis scripta*, *Lecanactis abietina*, *Parmeliopsis ambigua*, *Pertusaria hymenea*, *Porina leptalea*, *Thelotrema lepadinum*

Lichens on wayside trees (113 species)

Chrysothrix candelaris, *Imshaugia aleurites*, *Lepraria membranacea*, *Opegrapha vermicellifera*, *Parmeliopsis ambigua*, *Pertusaria flavida*, *Platismatia glauca*, *Usnea hirta*, *Usnea subfloridana*, *Varicellaria hemisphaerica*

Criterion B(ii)

Red Listed lichens (66 species)

Chaenotheca chrysocephala, *Chaenotheca furfuracea*, *Chaenotheca stemonea*, *Chrysothrix candelaris*, *Graphis scripta*, *Lecanactis abietina*, *Parmeliopsis ambigua*, *Pertusaria hymenea*, *Porina leptalea*, *Thelotrema lepadinum*

References

Bos-Groenendijk, G., Boer, E. de, Coppens, H., Dort, K. van, Glas, G., Guldemon, S., Kreeftenberg, H., Radstake, Y., Vaessen, A. & Wijk, E. van (2018) De flora en fauna van Kroondomein Het Loo, rapportage monitoring 2017. De Vlinderstichting, Wageningen.

Herk, C.M. van, A. Aptroot, L.B. Sparrius & J.L. Spier (2004) Paleispark Het Loo bij Apeldoorn, een ware hotspot voor epifytische korstmossen. *Buxbaumiella* 69: 9-16.



Rijntakken

Hotspot area: 498 ha

Natura 2000 site: Rijntakken, Veluwe

Species groups: Bryophytes, Plants

Province: Gelderland

Criterion B(i)

Bryophytes of nutrient rich forests (30 species)

Anomodon attenuatus, *Anomodon viticulosus*, *Brachythecium rivulare*, *Fissidens gymnandrus*, *Mnium marginatum*, *Neckera complanata*, *Oxyrhynchium pumilum*, *Plagiomnium rostratum*, *Porella platyphylla*, *Scleropodium cespitosum*

Vascular plants of nutrient-rich pioneer habitats (76 species)

Bidens radiata, *Crassula tillaea*, *Cyperus fuscus*, *Gypsophila muralis*, *Inula britannica*, *Leersia oryzoides*, *Limosella aquatica*, *Malva pusilla*, *Pulicaria vulgaris*, *Rorippa austriaca*

Schaffers, A. & R. Huiskes (2009) Vegetatiekundige inventarisatie en erosiebestendigheid van de waterkeringen in het beheersgebied van Waterschap Vallei en Eem. Alterra.

References

Kurstjens, G. & B. Peters (2011) Rijn in Beeld. Natuurontwikkeling langs de grote rivieren. Deel 2. De Nederrijn.



Staverden Estate

Hotspot area: 71 ha

Natura 2000 site: Veluwe

Species groups: Lichens

Province: Gelderland

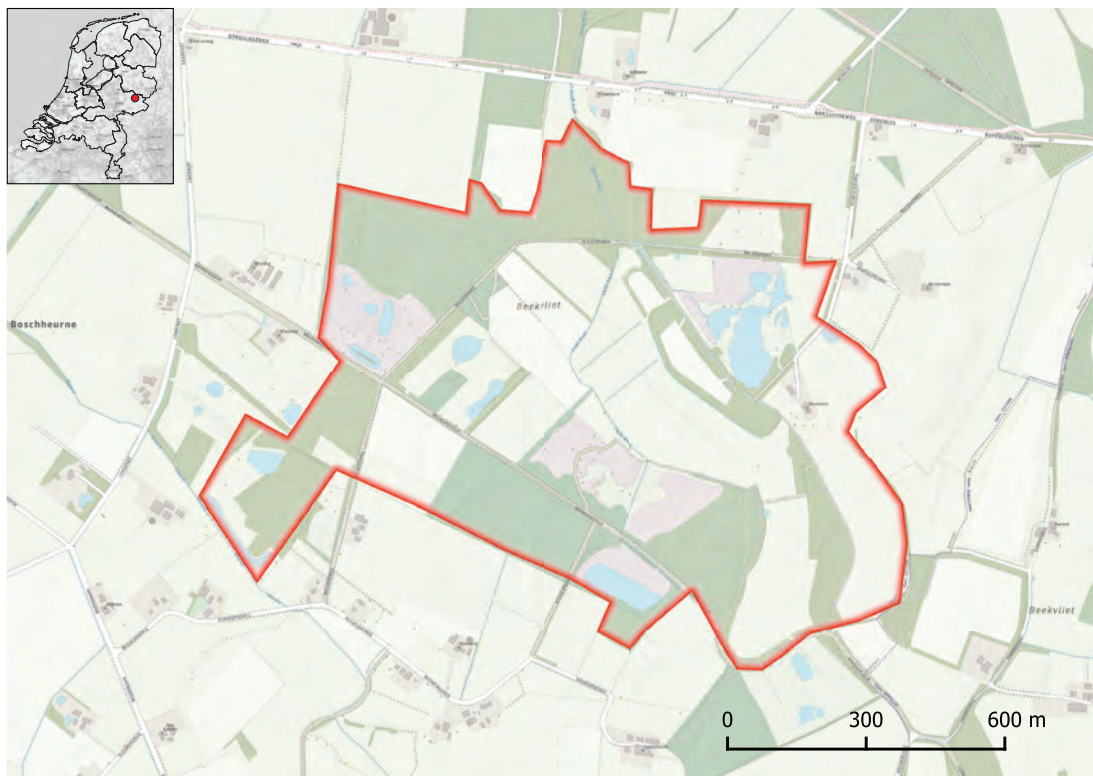
Criterion B(i)

Forest lichens (77 species)

Calicium salicinum, *Chaenotheca chlorella*, *Chaenotheca chrysocephala*, *Chaenotheca stemonea*, *Chrysothrix candelaris*, *Graphis scripta*, *Lecanactis abietina*, *Opegrapha vermicellifera*, *Parmeliopsis ambigua*, *Thelotrema lepadinum*

References

Sparrius, L.B. & H.J. Timmerman (2014) Lichenologische excursies op herhaling: een vergelijking van de situatie op de Noord-Veluwe. *Buxbaumiella* 100: 4-7.



Stelkampsveld

Hotspot area: 104 ha

Natura 2000 site: Stelkampsveld

Species groups: Plants

Province: Gelderland

Criterion B(i)

Vascular plants of heathlands, rich fens and mires
(73 species)

Arnica montana, *Carex appropinquata*, *Carex hostiana*,
Carex pulicaris, *Eleocharis quinqueflora*, *Juncus*
filiformis, *Lycopodium clavatum*, *Pinguicula vulgaris*,
Platanthera bifolia, *Viola persicifolia*

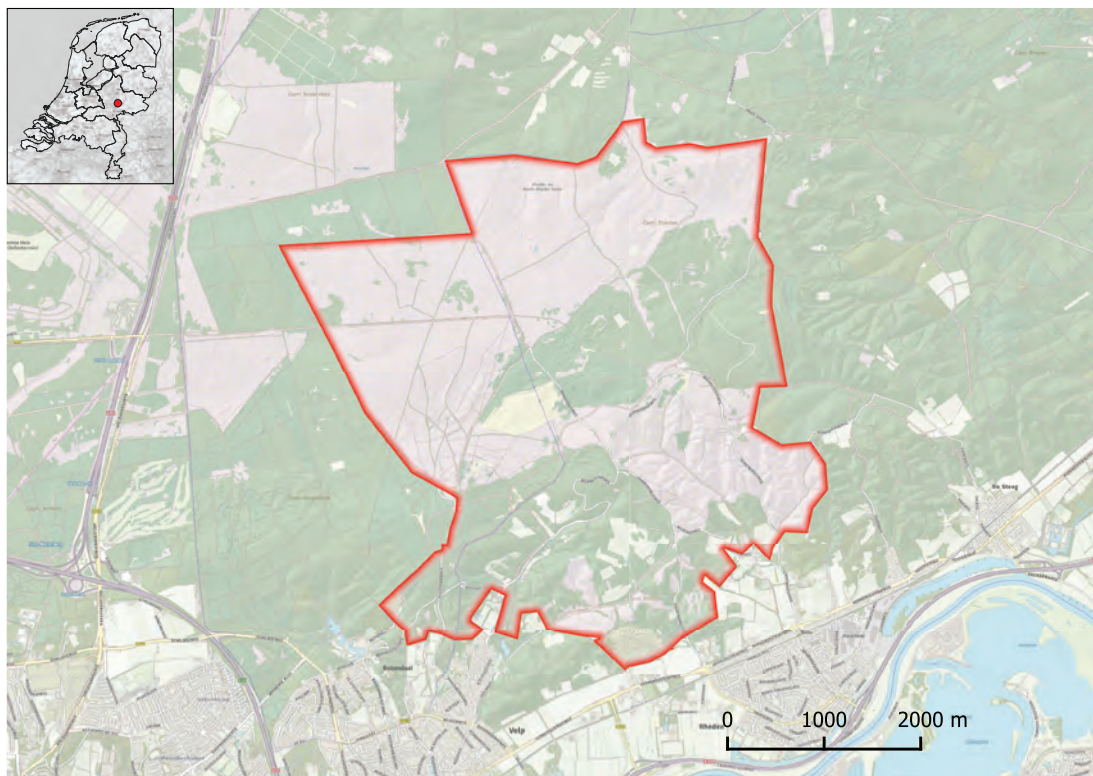
References

Rossenaar A.J.G.A. & J.G. Streefkerk (1997) Herstel van
een pleistoceen blauwgrasland: het Stelkampsveld. *De*
Levende Natuur 98: 266-272.

Criterion B(ii)

Red Listed vascular plants (56 species)

Arnica montana, *Baldellia ranunculoides* subsp.
ranunculoides, *Carex hostiana*, *Carex pulicaris*, *Juncus*
filiformis, *Lycopodium clavatum*, *Pinguicula vulgaris*,
Platanthera bifolia, *Potamogeton gramineus*, *Viola*
persicifolia



Veluwezoom

Hotspot area: 1996 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes, Mushrooms

Province: Gelderland

Criterion B(i)

Bryophytes of heaths and forested heaths (42 species)

Barbilophozia attenuata, *Barbilophozia barbata*, *Bazzania trilobata*, *Diplophyllum obtusifolium*, *Ditrichum heteromallum*, *Ditrichum lineare*, *Marsupella emarginata*, *Nardia scalaris*, *Oligotrichum hercynicum*, *Pogonatum nanum*

Bryophytes of nutrient poor forests (53 species)

Brachythecium oedipodium, *Bryum bornholmense*, *Dicranum fuscescens*, *Dicranum majus*, *Diphyscium foliosum*, *Nowellia curvifolia*, *Scapania nemorea*, *Schistostega pennata*, *Sphagnum girgensohnii*, *Sphagnum quinquefarium*

Criterion B(iii)

Cemeteries (Red Listed mushrooms) (70 species)

Asterostroma laxum, *Boletus calopus*, *Cantharellula umbonata*, *Cortinarius purpureus*, *Hygrophorus pen-*

rius, *Lyophyllum semitale*, *Ramaria aurea*, *Ramaria formosa*, *Russula turci*, *Stereopsis vitellina*

Cemeteries (Red Listed mushrooms) (70 species)

Asterostroma laxum, *Boletus calopus*, *Cantharellula umbonata*, *Cortinarius purpureus*, *Hygrophorus penarius*, *Lyophyllum semitale*, *Ramaria aurea*, *Ramaria formosa*, *Russula turci*, *Stereopsis vitellina*

References

- Brouwer, E. & G.J. Ilbrink (2004) Oude begraafplaatsen aan de zuidoostelijke Veluwerand. *Coolia* 47: 12-16.
- Rozemeijer, A.C. (2005) *Schistostega pennata* (Hedw.) Web. & Mohr. (Lichtmos) nieuw voor Nederland. *Buxbaumia* 70: 2-4.



Willinks Weust

Hotspot area: 87 ha

Natura 2000 site: Willinks Weust

Species groups: Plants, Mushrooms

Province: Gelderland

Criterion B(ii)

Red Listed macrofungi (213 species)

Amanita mairei, *Amylostereum laevigatum*, *Boletus satanas*, *Camarophyllopsis hymenoccephala*, *Cortinarius anthracinus*, *Cortinarius caeruleus*, *Cortinarius cedretorum*, *Entoloma atrocoeruleum*, *Entoloma formosum*, *Lactarius hygginus*

Criterion B(iii)

Old forests with high native woody plant diversity
(57 species)

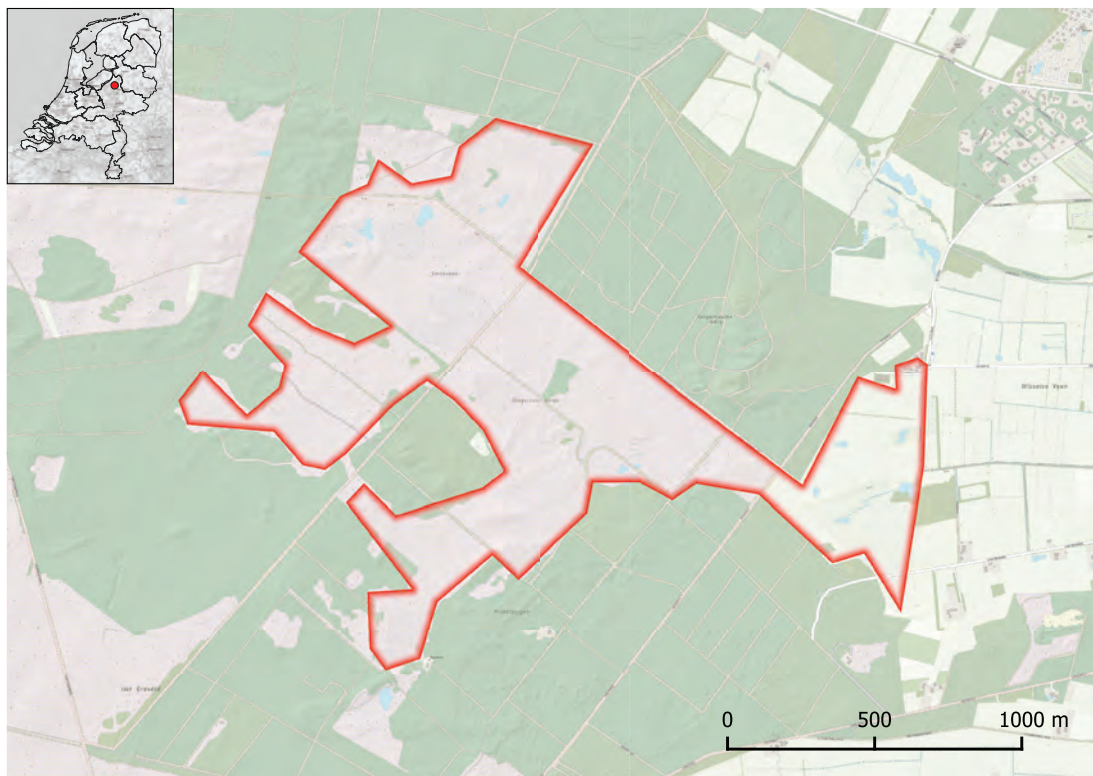
Corylus avellana, *Crataegus laevigata*, *Crataegus x macrocarpa*, *Mespilus germanica*, *Rosa arvensis*, *Rosa corymbifera*, *Rosa tomentosa*, *Rubus nessensis*, *Rubus spengelii*, *Tilia cordata*

References

Bijlsma, R.J., H.G.J.M. Koop & E.J. Weeda (2019) Het eiken-haagbeukenbos in Nederland: een bedreigde en uit beeld geraakt wisselvochtig ecosysteem. *De Levende Natuur* 120: 109-115.

Dam, N. & M. Dam (2017) Droogteminnende paddenstoelen van Nederland. Verslag van de binnenlandse werkweek in 2016. *Coolia* 60: 155-179.

Smalbraak, J., B. Maes & M. van Benthem (2016) Winterswijk: een nieuwe kijk op oude bossen. *Erfland Advies in opdracht van Stichting Waardevol Cultuurlandschap Winterswijk*.



Wisselse Veen & Tongerense Heide

Hotspot area: 160 ha

Natura 2000 site: Veluwe

Species groups: Bryophytes

Province: Gelderland

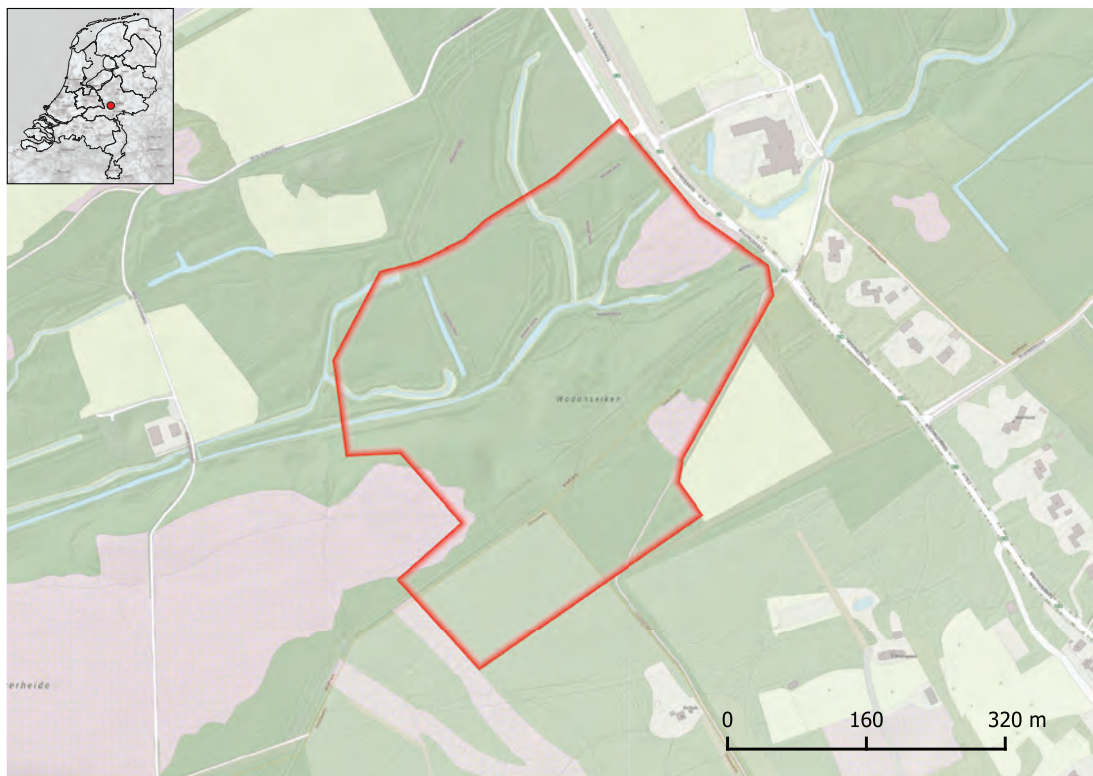
Criterion B(ii)

Red Listed bryophytes (34 species)

Cephalozia macrostachya, *Dicranum spurium*, *Odontschisma denudatum*, *Riccardia latifrons*, *Scapania irrigua*, *Scapania nemorea*, *Sphagnum capillifolium*, *Sphagnum flexuosum*, *Sphagnum subsecundum*, *Warnstorfia exannulata*

References

Held, J.J. den (2018) Een mossenkartering in het Wisselse Veen. *Buxbaumiella* 113: 49-54.



Wodanseiken

Hotspot area: 18 ha

Natura 2000 site: Veluwe

Species groups: Lichens

Province: Gelderland

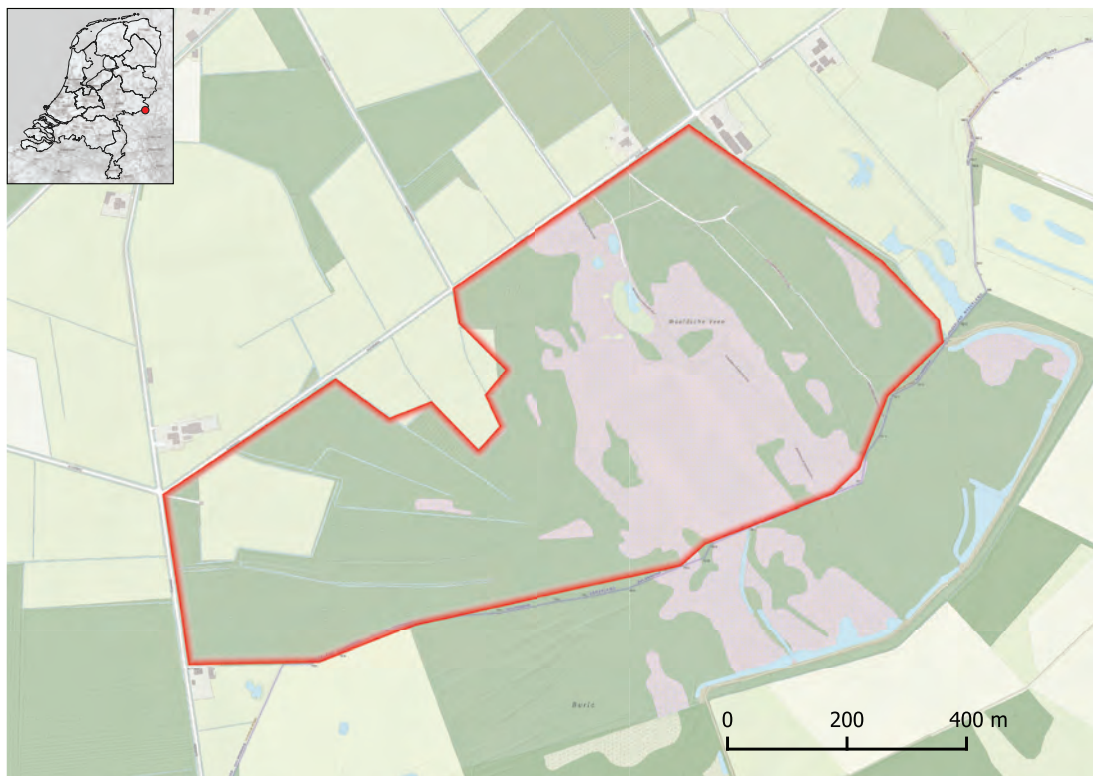
Criterion B(i)

Forest lichens (67 species)

Calicium glaucellum, *Chaenotheca chrysocephala*, *Chaenotheca stemonea*, *Cladonia incrassata*, *Cladonia polydactyla*, *Graphis scripta*, *Opegrapha vermicellifera*, *Parmeliopsis ambigua*, *Platismatia glauca*, *Trapeliopsis pseudogranulosa*

References

Dort, K.W. van & J.L. Spier (2004) *Omphalina hudsoniana* (H.S. Jenn.) H.E. Bigelow en *O. ericetorum* (Fr: Fr.) Lange op dood hout in Nederland. *Buxbaumia* 67: 45-48.



Wooldse Veen

Hotspot area: 61 ha

Natura 2000 site: Wooldse Veen

Species groups: Bryophytes

Province: Gelderland

Criterion B(ii)

Red Listed bryophytes (21 species)

Cephalozia macrostachya, *Cladopodiella fluitans*,
Dicranum bonjeanii, *Leptodontium flexifolium*,
Lophozia bicrenata, *Mylia anomala*, *Sphagnum capil-*
lifolium, *Sphagnum flexuosum*, *Sphagnum molle*,
Sphagnum rubellum

References

Bos, F. & H.J. During (1986) De najaarsexcursie 1983
naar Winterswijk. *Buxbaumiella* 19: 7-20.



Horsterwold

Hotspot area: 4637 ha

Natura 2000 site: Veluwerandmeren

Species groups: Bryophytes

Province: Flevoland

Criterion B(i)

Pioneer bryophytes on trees (44 species)

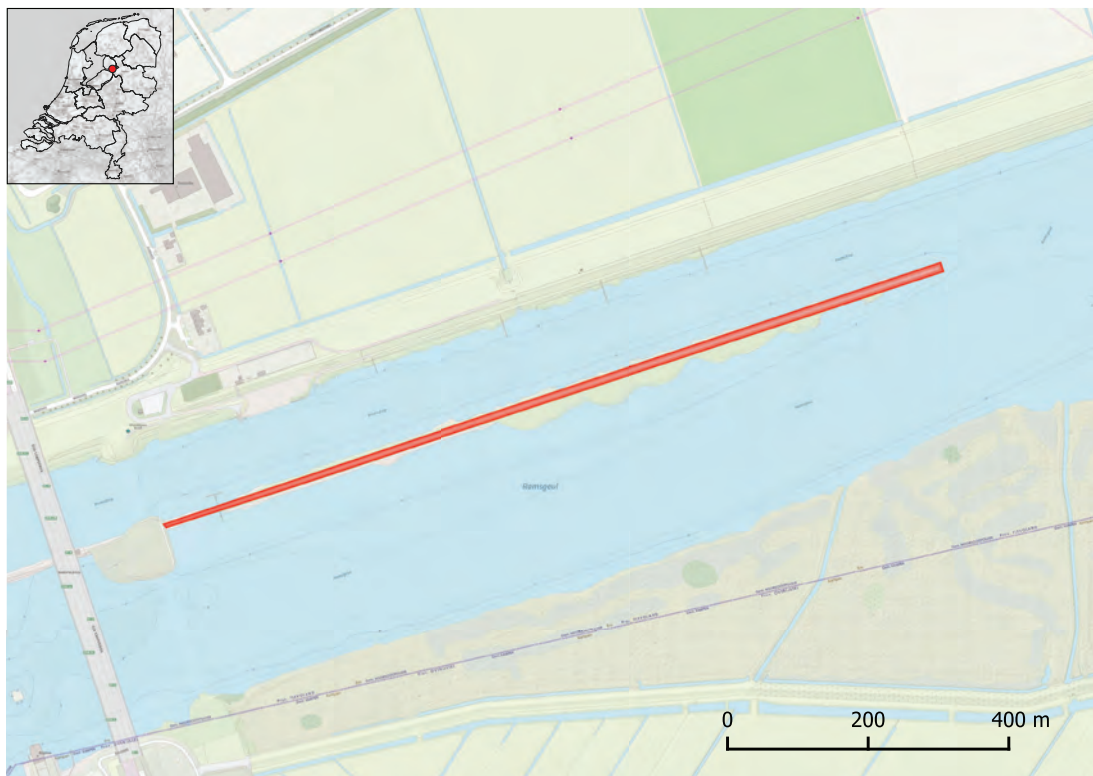
Cololejeunea minutissima, *Leucodon sciuroides*,
Neckera pumila, *Orthotrichum alpestre*, *Orthotrichum*
hispanicum, *Orthotrichum patens*, *Orthotrichum*
rupestre, *Orthotrichum shawii*, *Ulotia coarctata*,
Zygodon rupestris

References

Bijlsma, R.J. (1996) De excursie van 23 maart 1996 naar het Horsterwold (Z-Flevoland). *Buxbaumiella* 40: 32-36.

Pellicaan, J.W. (2012) *Ulotia hutchinsiae* (Sm.) Hammar (steenkroesmos) nieuw voor Nederland. *Buxbaumiella* 94: 39-41.

Pluijm, A. van der (2004) Species of *Orthotrichum* new to the Netherlands. *Lindbergia* 29: 17-32.



Ramspol dam

Hotspot area: 1.4 ha

Natura 2000 site: Zwarte Meer

Species groups: Lichens

Province: Flevoland

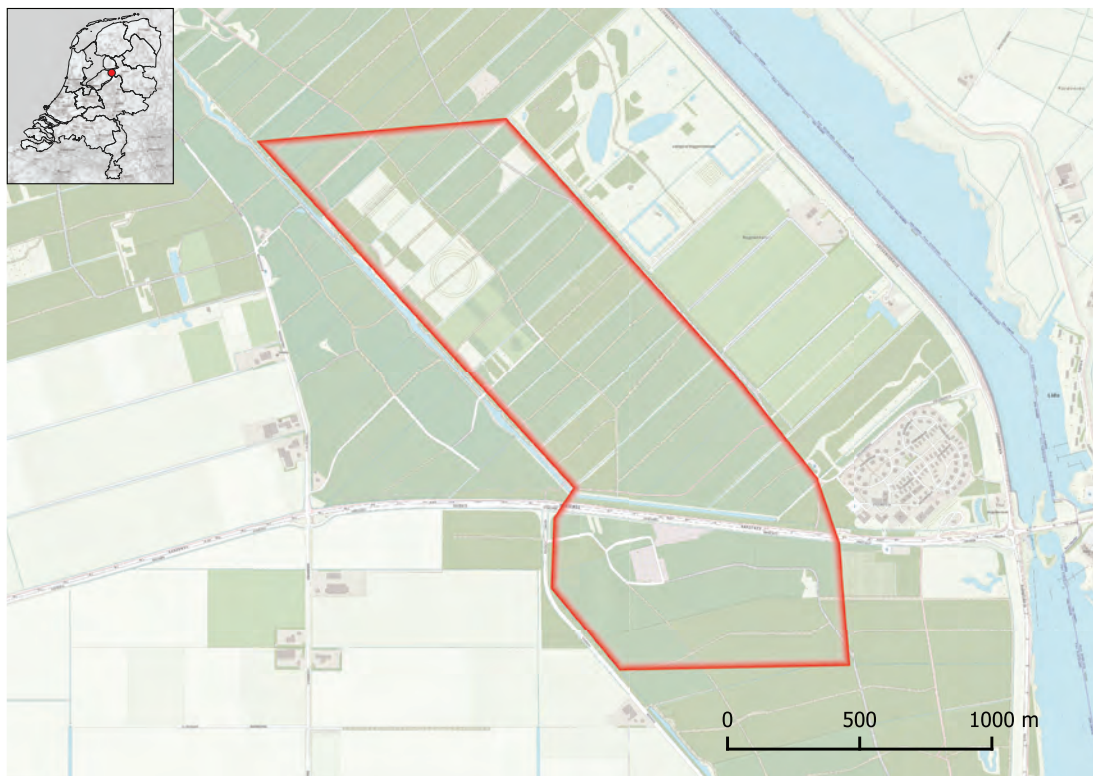
Criterion B(ii)

Red Listed lichens (21 species)

Cladonia pyxidata, *Lecanora rupicola*, *Lecanora subaurea*, *Placopsis gelida*, *Placopsis lambii*, *Pyrenodesmia atroflava*, *Rhizocarpon geographicum*, *Rhizocarpon petraeum*, *Verrucaria hydrophila*, *Xanthoparmelia loxodes*

References

Sparrius, L.B., A. Aptroot & J.L. Spier (2004) Korstmossen in de Noordoostpolder, Noordwest-Overijssel en de Lindevallei. *Buxbaumiella* 69: 2-8.



Roggebotzand

Hotspot area: 206 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Flevoland

Criterion B(i)

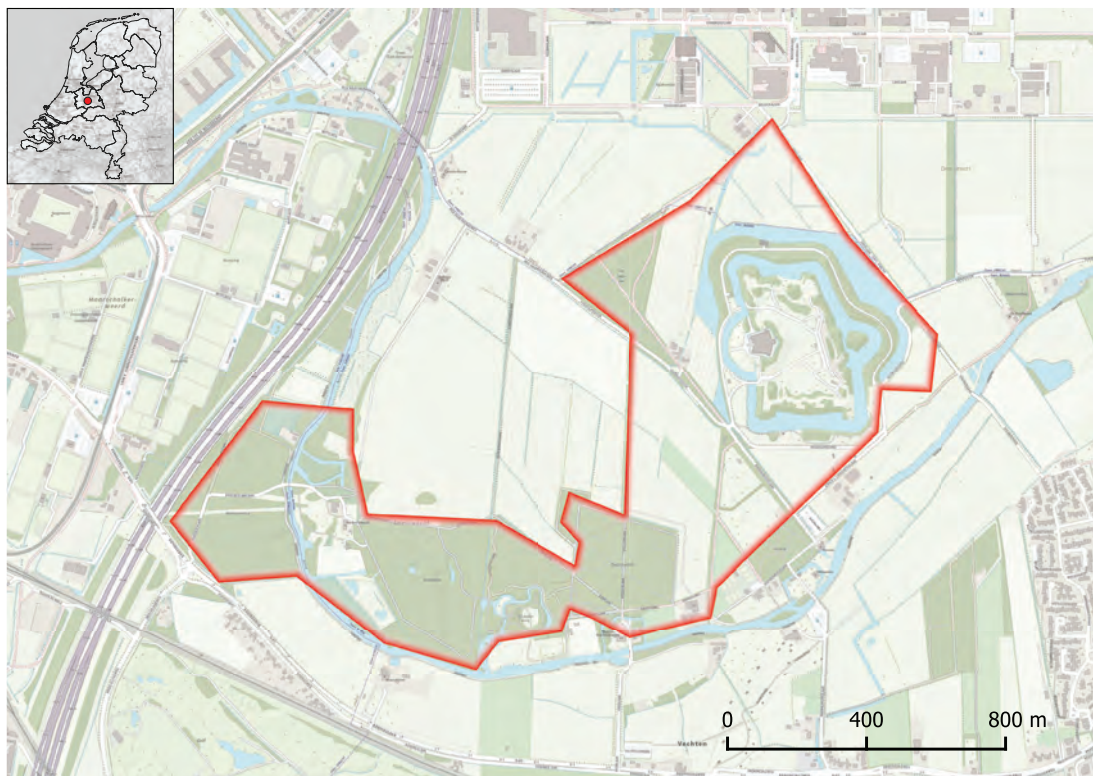
Mushrooms of coniferous forests (144 species)

Chrysomphalina grossula, *Discina ancilis*, *Exidia pithya*, *Geastrum quadrifidum*, *Helvella confusa*, *Lycoperdon perlatum* var. *bonordenii*, *Lyophyllum boudieri*, *Lyophyllum ozes*, *Tricholoma vaccinum*, *Tricholoma vaccinum* var. *fulvosquamosum*

References

Putte, A. van der (2017) Cristella-weekend Nagele 13-15 november 2015. *Coolia* 60: 23-35.

Veerkamp, M. (1993) *Paddestoelen in de provincie Flevoland*. Nederlandse Mycologische Vereniging.



Amelisweerd & Fort Rijnauwen

Hotspot area: 132 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Utrecht

Criterion B(i)

Mushrooms of wooded elements in mosaic landscape
(118 species)

Agaricus bohusii, *Amanita lividopallescens*, *Boletus satanas*, *Cortinarius caeruleus*, *Cortinarius sacchariosmus*, *Lactarius fuliginosus*, *Lactarius mairei*, *Lactarius ruginosus*, *Russula viscida*, *Tricholoma sciodes*

Osieck, E., Bruggeman-Nannenga, I. & M. Veerkamp (2012) In de Utrechtse kleibossen. Verslag Cristella-weekend Lage Vuursche, 4-6 november 2011. Coolia 55: 105-116.

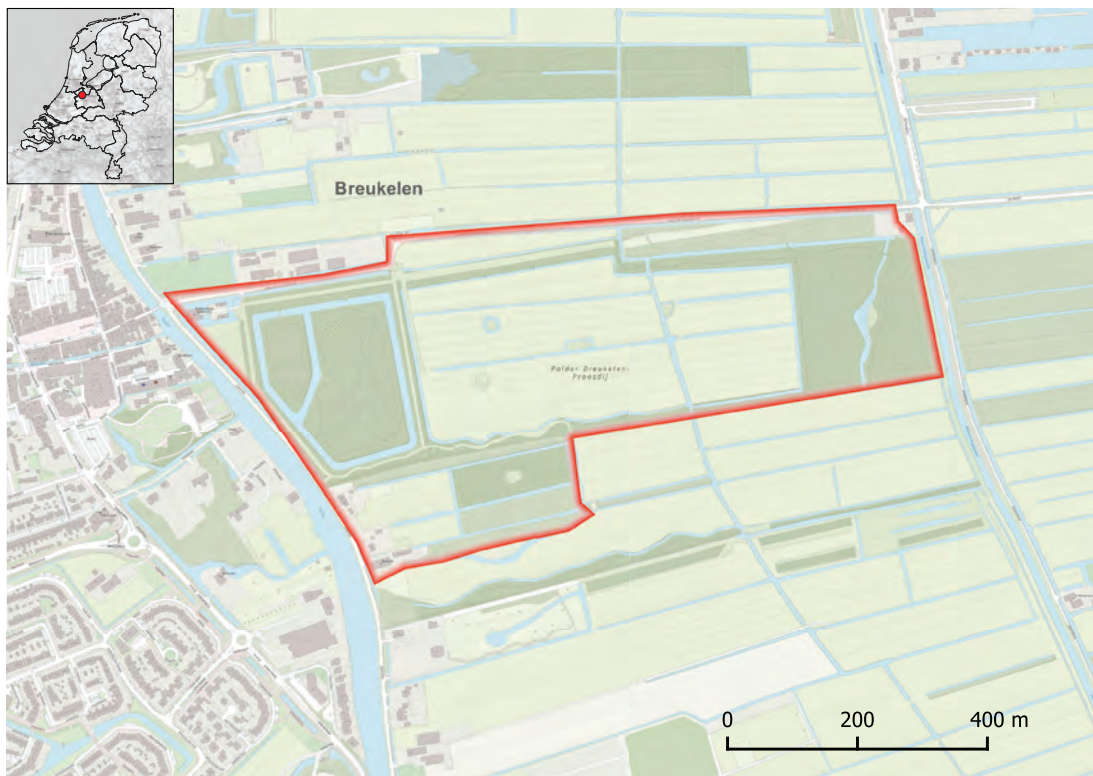
Putte, A. van der (2008) De excursies in 2007. Coolia 51: 124-134.

References

Dool, E. van den, Veerkamp, M., Keizer, P. (1997) Kleibospaddestoelen III. Utrechtse kleiboslanen - 'bijzondere' soorten, vroeger en nu. Coolia 40: 73-125.

Gutter, A. (2005) De excursies in 2004: Jaar vol zeldzaamheden. Coolia 48: 149-159.

Keizer, P.J., E. van den Dool & M.T. Veerkamp (1995) Kleibospaddestoelen II. Utrechtse kleiboslanen - verspreiding, oecologie en waardering. Coolia 38: 54-68.



Gunterstein Estate

Hotspot area: 39 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Utrecht

Criterion B(ii)

Red Listed macrofungi (131 species)

Amanita lividopallescens, *Amanita submembranacea*, *Cortinarius balteatocumatilis*, *Hygrophorus discoxanthus*, *Hygrophorus eburneus*, *Hygrophorus unicolor*, *Russula anthracina*, *Russula viscida*, *Tricholoma acerbum*, *Tricholoma sciodes*

References

Dool, E. van den, Veerkamp, M., Keizer, P. (1997) Kleibospaddestoelen III. Utrechtse kleiboslanen - 'bijzondere' soorten, vroeger en nu. *Coolia* 40: 73-125.

Keizer, P.J., E. van den Dool & M.T. Veerkamp (1995) Kleibospaddestoelen II. Utrechtse kleiboslanen - verspreiding, oecologie en waardering. *Coolia* 38: 54-68.

Putte, A. van der (2012) De excursies in 2011. *Coolia* 55: 157-170.



Laarsenberg

Hotspot area: 209 ha

Natura 2000 site: Rijntakken

Species groups: Plants

Province: Utrecht

Criterion B(iii)

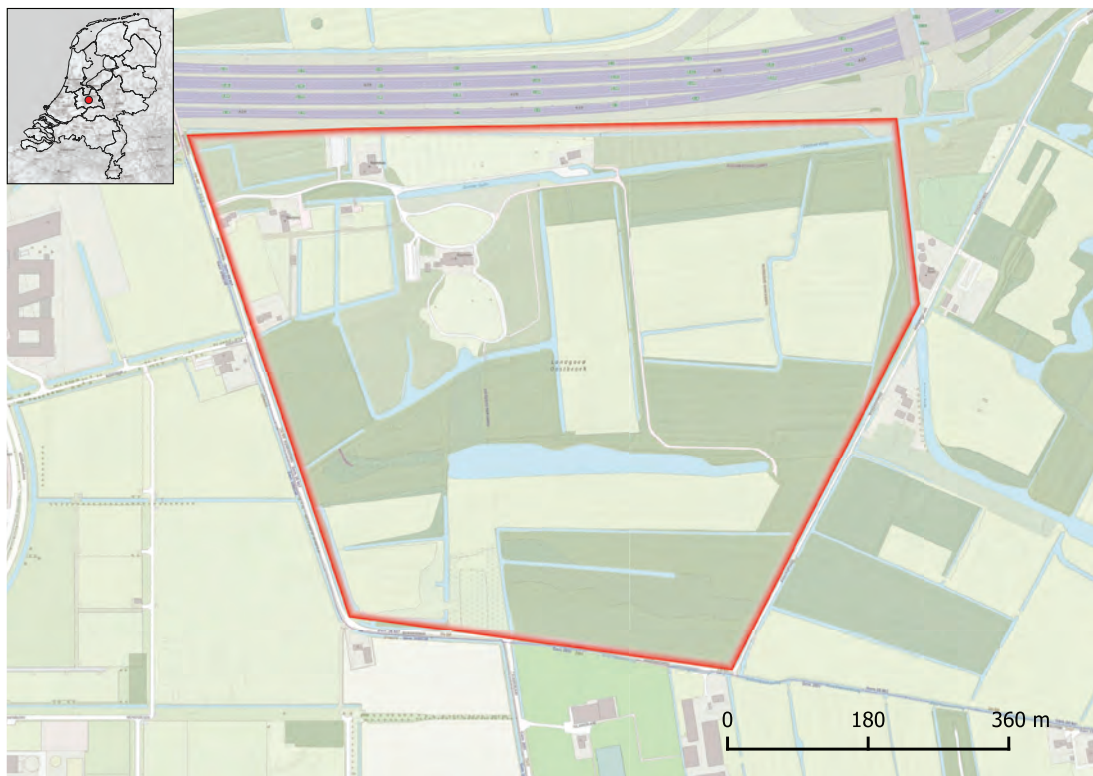
Arable weeds (31 species)

Anthemis arvensis, *Anthemis cotula*, *Aphanes arvensis*, *Arnoseris minima*, *Filago vulgaris*, *Lathyrus tuberosus*, *Mibora minima*, *Misopates orontium*, *Myosotis stricta*, *Veronica opaca*

References

Feijen, M. (2011) Beheerplan Blauwe Kamer, Grebberg en Laarsenberg 2011-2021. Stichting Het Utrechts Landschap.

Haveman, R. (1997) Akkerreservaten in Nederland. Botanische kwaliteit en beheer. IKC Natuurbeheer.



Landgoed Oostbroek

Hotspot area: 50 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Utrecht

Criterion B(i)

Mushrooms of wooded elements in mosaic landscape
(78 species)

Agaricus bohusii, *Amanita ceciliae*, *Amanita franchetii*, *Boletus appendiculatus*, *Boletus impolitus*, *Boletus rhodoxanthus*, *Cortinarius balteatocumatilis*, *Lactarius ruginosus*, *Russula viscida*, *Tricholoma sejunctum*

Osieck, E., Bruggeman-Nannenga, I. & M. Veerkamp (2012) In de Utrechtse kleibossen. Verslag Cristella-weekend Lage Vuursche, 4-6 november 2011. *Coolia* 55: 105-116.

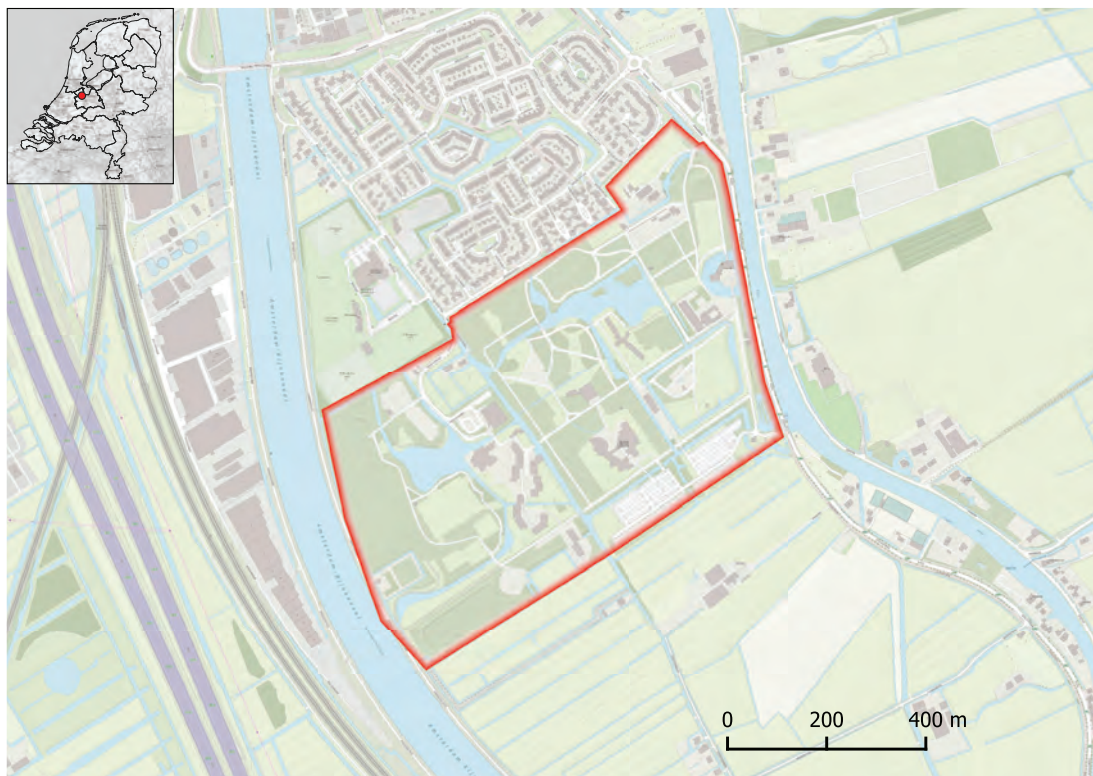
Putte, A. van der (2015) De NMV-excursies in 2014. *Coolia* 58: 191-205.

References

Dool, E. van den, Veerkamp, M., Keizer, P. (1997) Kleibospaddestoelen III. Utrechtse kleiboslanen - 'bijzondere' soorten, vroeger en nu. *Coolia* 40: 73-125.

Keizer, J. & Termorshuizen, A. (1997) De excursies van 1996. *Coolia* 40: 146-153.

Keizer, P.J., E. van den Dool & M.T. Veerkamp (1995) Kleibospaddestoelen II. Utrechtse kleiboslanen - verspreiding, oecologie en waardering. *Coolia* 38: 54-68.



Nijenrode Estate

Hotspot area: 54 ha

Natura 2000 site: -

Species groups: Macrofungi, Plants

Province: Utrecht

Criterion B(ii)

Mushrooms of meadows and grasslands (97 species)

Camarophyllopsis foetens, *Camarophyllopsis hymen-
ocephala*, *Clavaria incarnata*, *Clavaria straminea*,
Deconica micropora, *Hygrocybe glutinipes*, *Hygrocybe
irrigata*, *Hygrophoropsis fuscusquamula*, *Ramariopsis
crocea*, *Ramariopsis kunzei*

Mushrooms of swamp woodland (358 species)

Agaricus macrocarpus, *Amanita crocea*, *Amanita
solitaria*, *Camarophyllopsis atropuncta*, *Cortinarius
anthracinus*, *Cortinarius triumphans*, *Hygrophorus
persoonii*, *Leucoagaricus tener*, *Mycenella trachyspora
var. trachyspora*, *Russula subcristulata*

Mushrooms of wooded elements in mosaic landscape
(150 species)

Agaricus bohusii, *Amanita lividopallescens*, *Boletus
fechtneri*, *Cortinarius balteatocumatilis*, *Cortina-
rius coalescens*, *Cortinarius crassus*, *Hygrophorus*

eburneus, *Russula rutila*, *Russula viscida*, *Tricholoma
sciodes*

Criterion B(iii)

Stinzen forests (38 species)

Campanula latifolia, *Cornus mas*, *Fritillaria melea-
gris*, *Helleborus foetidus*, *Luzula sylvatica*, *Matteuccia
struthiopteris*, *Ornithogalum nutans*, *Petasites albus*,
Ribes alpinum, *Tulipa sylvestris*

References

Dool, E. van den, Veerkamp, M., Keizer, P. (1997) Klei-
bospaddestoelen III. Utrechtse kleiboslanen - 'bijzon-
dere' soorten, vroeger en nu. *Coolia* 40: 73-125.

Immerzeel, G. (1986) De mycoflora van kasteelpark
Nijenrode, een kleibos aan de Vecht. *Coolia* 29: 77-87.

Keizer, P.J., E. van den Dool & M.T. Veerkamp (1995)
Kleibospaddestoelen II. Utrechtse kleiboslanen

-verspreiding, oecologie en waardering. Coolia 38: 54-68.

Osieck, E., Bruggeman-Nannenga, I. & M. Veerkamp (2012) In de Utrechtse kleibossen. Verslag Cristella-weekend Lage Vuursche, 4-6 november 2011. Coolia 55: 105-116.

Putte, A. van der (2015) De NMV-excursies in 2014. Coolia 58: 191-205.

Woerdeman, T. (2009) Stinzenplanten in de tuinhistorie. In: A. van der does & J. Holwerda, Tuingeschiedenis in Nederland. Veelzijdig erfgoed in t groen. Uitgeverij Matrijs, Utrecht.



Oostelijke vechtplassen

Hotspot area: 3384 ha

Natura 2000 site: Oostelijke Vechtplassen

Species groups: Plants

Province: Utrecht

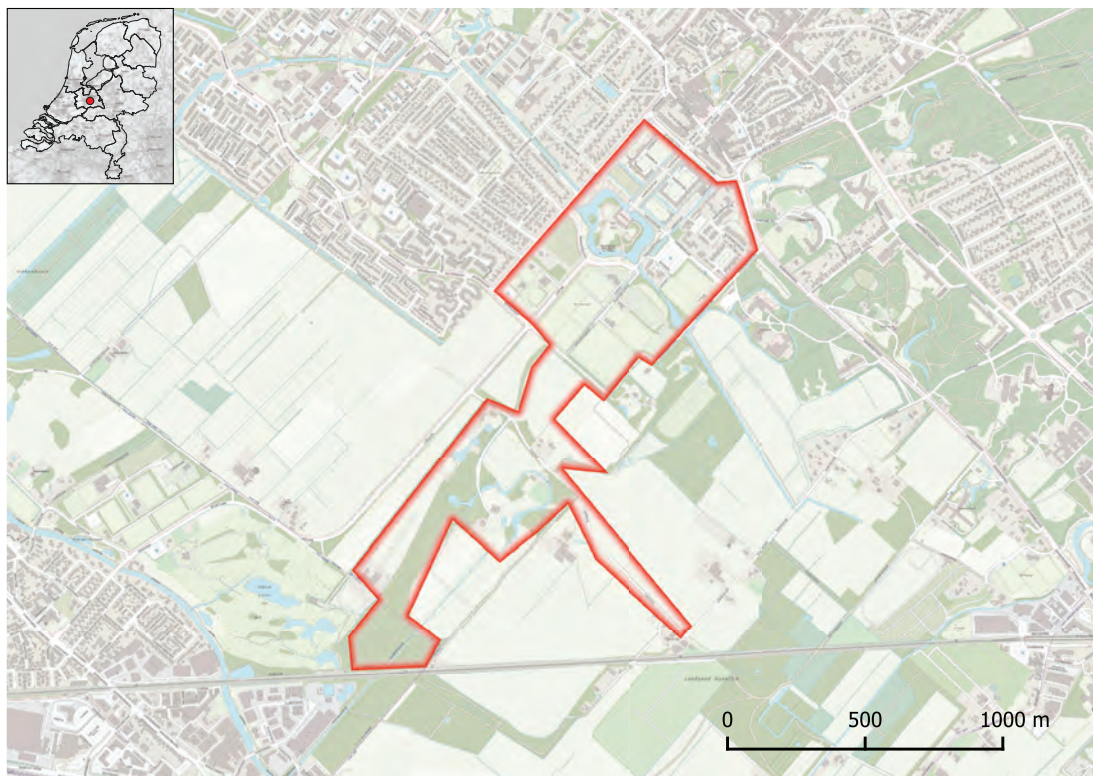
Criterion B(i)

Vascular plants of fresh water and river banks (135 species)

Baldellia ranunculoides subsp. *ranunculoides*, *Cladium mariscus*, *Leucojum aestivum*, *Najas marina*, *Potamogeton alpinus*, *Potamogeton praelongus*, *Silene baccifera*, *Sparganium angustifolium*, *Sparganium natans*, *Utricularia intermedia*

References

Zomerdijk, P. (2010) Biodiversiteit in het Vechtplassen-gebied. *Korhaan* 44: 167-169.



Slot Zeist, Blikkenburgerlaan, Wulperhorst

Hotspot area: 97 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Utrecht

Criterion B(i)

Mushrooms of wooded elements in mosaic landscape
(125 species)

Agaricus bohusii, *Amanita lividopallescens*, *Aureoboletus gentilis*, *Boletus legaliae*, *Cortinarius saccharosmus*, *Cortinarius turgidus*, *Ramaria fennica*, *Russula rutila*, *Russula viscida*, *Tricholoma sciodes*

Tolsma, B. (2003) Kroonjuwelen en andere mycologische snuisterijen 8: Beheer van de Notenlaan bij Zeist, een kroonjuweel bij uitstek. *Coolia* 46: 78-89.

Tolsma, B. (2017) De Blikkenburgerlaan in Zeist, genomineerd! *Coolia* 60: 250-251.

References

Dool, E. van den, Veerkamp, M., Keizer, P. (1997) Kleibospaddestoelen III. Utrechtse kleiboslanen - 'bijzondere' soorten, vroeger en nu. *Coolia* 40: 73-125.

Keizer, P.J., E. van den Dool & M.T. Veerkamp (1995) Kleibospaddestoelen II. Utrechtse kleiboslanen - verspreiding, oecologie en waardering. *Coolia* 38: 54-68.

Putte, A. van der (2015) De NMV-excursies in 2014. *Coolia* 58: 191-205.



Slot Zuylen

Hotspot area: 3.1 ha

Natura 2000 site: -

Species groups: Lichens

Province: Utrecht

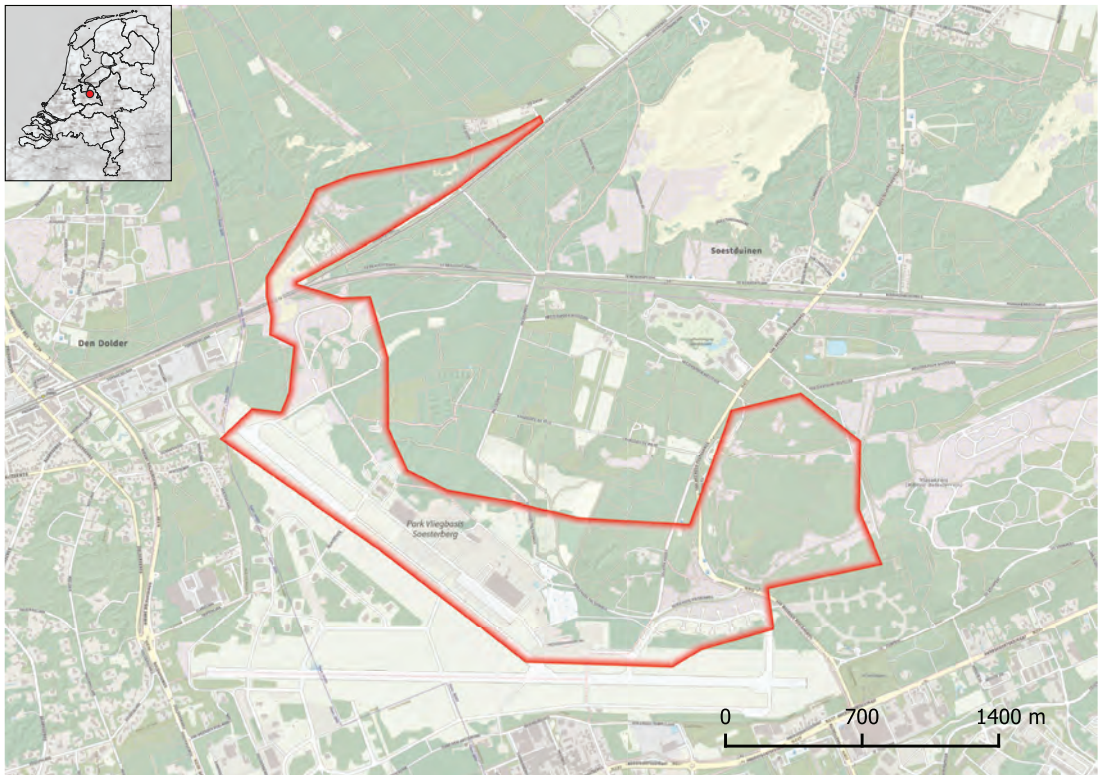
Criterion B(iii)

Historical buildings and cemeteries (Red Listed lichens) (5 species)

Hypogymnia physodes, Lecanora conizaeoides, Lecanora sulphurea, Trapelia glebulosa, Xanthoparmelia verruculifera

References

Sparrius, L.B., A. Aptroot & C.M. van Herk (2007) Diversity and ecology of lichens on churches in The Netherlands. Nova Hedwigia 85: 299-316.



Soesterberg airport & inland dunes Soest

Hotspot area: 298 ha

Species groups: Lichens

Natura 2000 site: -

Province: Utrecht

Criterion B(ii)

Red Listed lichens (44 species)

Blastenia ferruginea, *Cladonia cariosa*, *Cladonia phyllophora*, *Cladonia strepsilis*, *Dibaeis baeomyces*, *Micarea lithinella*, *Peltigera canina*, *Platismatia glauca*, *Stereocaulon condensatum*, *Usnea subfloridana*

References

Herk, C.M. van, J.L. Spier & K.W. van Dort (1998) De lichenologische excursie van Soest-Zuid naar de Lange Duinen en De Zoom op 8 november 1997. Buxbaumia 45: 22-29.



Utrecht city center and industrial areas

Hotspot area: 2439 ha

Natura 2000 site: -

Species groups: Plants, Bryophytes

Province: Utrecht

Criterion B(i)

Pioneer bryophytes on calcareous rock (13 species)

Didymodon luridus, *Grimmia orbicularis*, *Grimmia pulvinata*, *Gyroweisia tenuis*, *Leptobarbula berica*, *Orthotrichum anomalum*, *Rhynchostegium confertum*, *Schistidium crassipilum*, *Tortula marginata*, *Tortula muralis*

Kamp, J.S. van der (2018) Utrechtse planten van watervedermos (*Fissidens fontanus*, syn. *Octodice-ras*) vormen sporenkapsels in een huiskamercultuur. *Buxbaumiella* 112: 12-13.

Maes, B. & P. Bakker (2002) Evaluatie Beschermingsplan Muurplanten. Muurplantenbeleid in de periode 1988-2000. Ministerie van LNV.

Maes, B., P. Bakker & H. Kuiper (2009) Muurvegetatie van de Utrechtse gracht- en werfmuren. Verslag inventarisatie 2008/2009. Ecologisch Adviesbureau Maes.

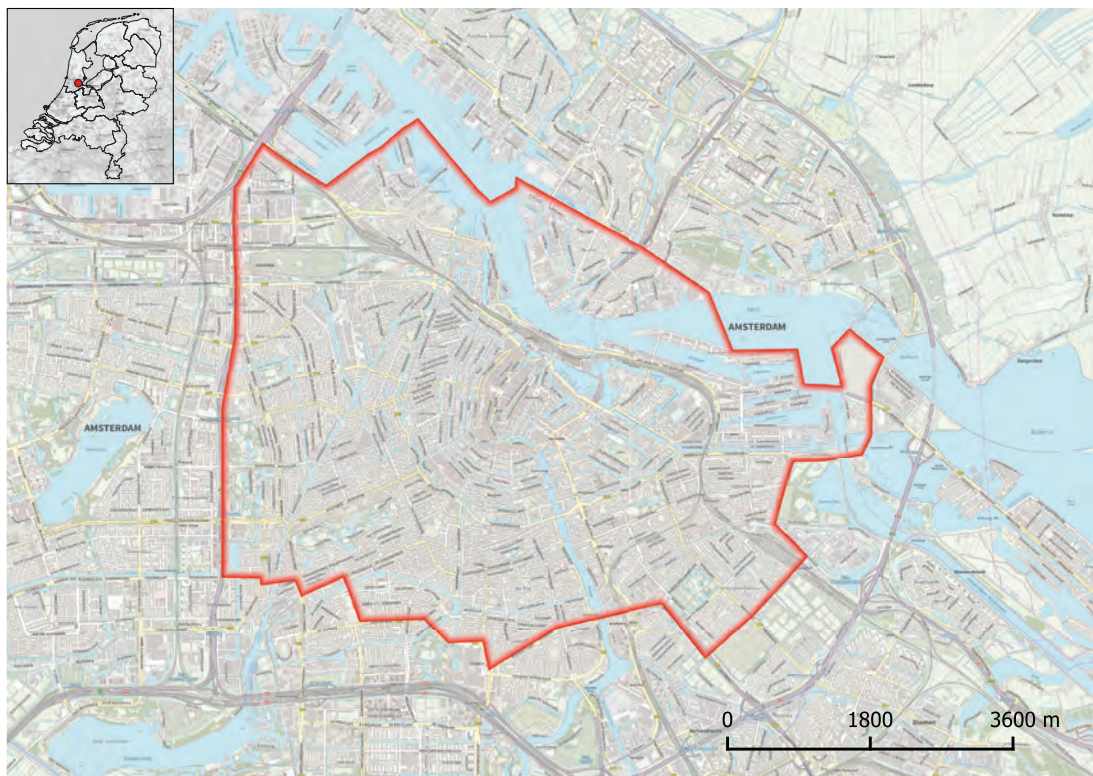
Criterion B(iii)

Chasmophytic plants (18 species)

Asplenium adiantum-nigrum, *Asplenium trichomanes*, *Catapodium rigidum*, *Cyrtomium falcatum*, *Cyrtomium fortunei*, *Erigeron karvinskianus*, *Erysimum cheiri*, *Parietaria judaica*, *Pseudofumaria alba*, *Pseudofumaria lutea*

References

Denters, T. (2004) *Stadsplanten*. Fontaine Uitgevers.



Amsterdam city center

Hotspot area: 3763 ha

Natura 2000 site: -

Species groups: Plants

Province: Noord-Holland

Criterion B(iii)

Chasmophytic plants (23 species)

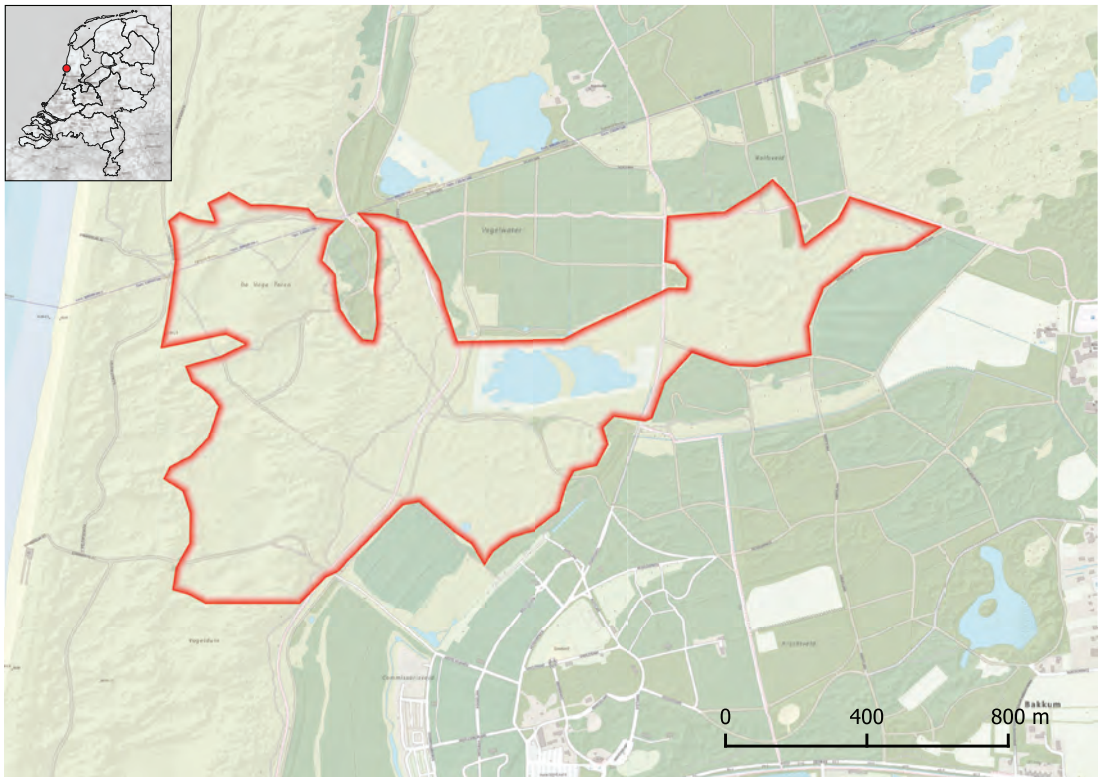
Asplenium adiantum-nigrum, *Asplenium ceterach*, *Asplenium viride*, *Catapodium rigidum*, *Cyrtomium falcatum*, *Cyrtomium fortunei*, *Cystopteris fragilis*, *Erysimum cheiri*, *Hieracium murorum*, *Pseudofumaria alba*

References

Denters, T. (2004) *Stadsplanten*. Fontaine Uitgevers.

Hooen, V. ten e.a. (2010) *Muurplanten in Noord-Holland*. Werk- en Adviesgroep Muurplanten Noord-Holland.

Maes, B. & P. Bakker (2002) *Evaluatie Beschermingsplan Muurplanten*. Muurplantenbeleid in de periode 1988-2000. Ministerie van LNV.



Dunes of Bakkum

Hotspot area: 121 ha

Natura 2000 site: Noordhollands Duinreservaat

Species groups: Bryophytes

Province: Noord-Holland

Criterion B(i)

Bryophytes of dry nutrient poor grasslands (12 species)

Bryum provinciale, *Campylopus fragilis*, *Ditrichum flexicaule*, *Homalothecium lutescens*, *Lophozia excisa*, *Pleurochaete squarrosa*, *Racomitrium canescens*, *Rhynchostegium megapolitanum*, *Tortella flavovirens*, *Tortula subulata*



Dunes of Texel: Mok, Hors, Westerduinen

Hotspot area: 1507 ha

Natura 2000 site: Duinen en Lage Land Texel

Species groups: Lichens, Mushrooms

Province: Noord-Holland

Criterion B(i)

Lichens in coastal dunes (40 species)

Agonimia tristicula, *Bacidia bagliettoana*, *Cladonia ciliata*, *Cladonia pocillum*, *Cladonia rei*, *Diploschistes muscorum*, *Peltigera canina*, *Peltigera neckeri*, *Scytinium gelatinosum*, *Scytinium pulvinatum*

Mushrooms of fens, marshes and river banks (19 species)

Alnicola tantilla, *Arrhenia lobata*, *Hebeloma psammophilum*, *Hygrocybe conica* var. *conicopalustris*, *Hygrocybe phaeococcinea*, *Lepista tomentosa*, *Mycena belliae*

Mushrooms of scrub and coppices (42 species)

Aleurodiscus aurantius, *Arrhenia lobata*, *Entoloma mougeotii*, *Entoloma querquedula*, *Hebeloma nigellum*, *Hygrocybe conica* var. *conicopalustris*, *Hygrocybe phaeococcinea*, *Merismodes bresadolae*, *Mycena belliae*, *Phaeomarasmium erinaceus*

References

Brand, A.M. (1979) De lichenen van de excursie naar Texel (1976). *Buxbaumiella* 8: 32-41.

Gutter, A. (2003) Paddestoelenzoeken door de seizoenen heen. *Coolia* 46: 122-133.

Haveman, R. & I. de Ronde (2011) *Usnea flavocardia* (gelig baardmos) in duingrasland op Texel. *Buxbaumiella* 90: 23-26.

Haveman, R.H. (2006) Bodembewonende epifytische lichenen op de zuidpunt van Texel. *Buxbaumiella* 75: 9-15.



Dunes of Texel: Slufter

Hotspot area: 986 ha

Natura 2000 site: Duinen en Lage Land Texel

Species groups: Plants

Province: Noord-Holland

Criterion B(i)

Vascular plants of coastal dunes and salt marshes (57 species)

Calammophila baltica, *Carex extensa*, *Cochlearia officinalis* subsp. *anglica*, *Convolvulus soldanella*, *Eryngium maritimum*, *Juncus maritimus*, *Oenanthe lachenalii*, *Parapholis strigosa*, *Sagina maritima*, *Salsola kali*

Criterion B(ii)

Red Listed vascular plants (93 species)

Anacamptis morio, *Carex extensa*, *Carlina vulgaris*, *Cochlearia officinalis* subsp. *anglica*, *Eleocharis quinqueflora*, *Genista tinctoria*, *Juncus maritimus*, *Oenanthe lachenalii*, *Parapholis strigosa*, *Schoenus nigricans*



Dyke of Schellinkhout

Hotspot area: 3.7 ha

Natura 2000 site: -

Species groups: Lichens

Province: Noord-Holland

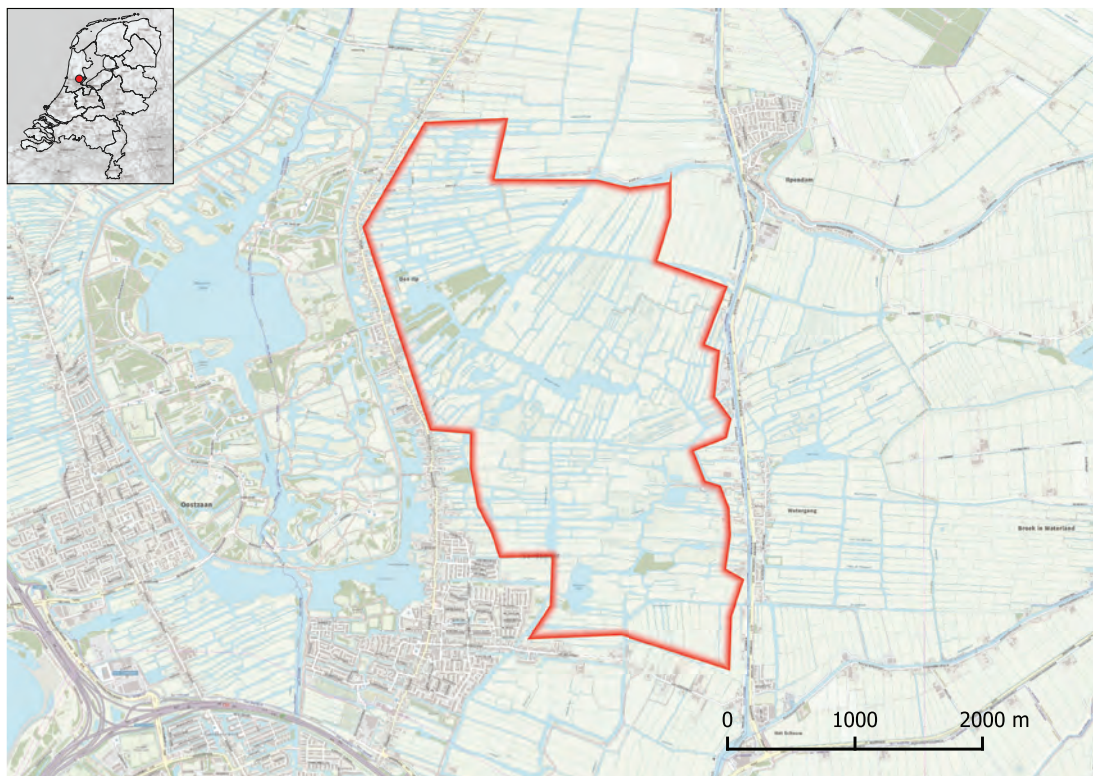
Criterion B(ii)

Red Listed lichens (19 species)

Diplotomma chlorophaeum, *Flavoplaca marina*,
Hydropunctaria maura, *Lecania atrynoides*, *Pertusaria*
aspergilla, *Pertusaria corallina*, *Pertusaria lactescens*,
Rhizocarpon geographicum, *Scytinium teretiusculum*,
Variospora thallincola

References

Aptroot, A. & W. van Heesch (1996) Korstmossen en mossen op dijken en iepen bij Hoorn (Noord-Holland). *Buxbaumiella* 40: 28-31.



Ilperveld

Hotspot area: 795 ha

Natura 2000 site: Ilperveld, Varkensland, Oostzanerveld & Twiske

Species groups: Mushrooms

Province: Noord-Holland

Criterion B(i)

Mushrooms of fens, marshes and river banks (14 species)

Entoloma sphagneti, *Galerina jaapii*, *Galerina paludosa*, *Galerina tibiicystis*, *Hygrocybe coccineocrenata*, *Hygrocybe phaeococcinea*, *Lyophyllum palustre*, *Marasmius limosus*, *Mycena belliae*, *Pholiota conissans*

References

Putte, A. van der (2014) De NMV-excursies in 2013. *Coolia* 57: 197-213.



Kortenhoefse Plassen, Het Hol & Vuntus

Hotspot area: 871 ha

Natura 2000 site: Oostelijke Vechtplassen

Species groups: Bryophytes

Province: Noord-Holland

Criterion B(i)

Bryophytes of marshland and wet grasslands (24 species)

Calliergon giganteum, *Campyliadelphus elodes*, *Campylium stellatum*, *Dicranum bonjeanii*, *Drepanocladus polygamus*, *Riccardia multifida*, *Ricciocarpos natans*, *Scorpidium scorpioides*, *Sphagnum contortum*, *Sphagnum teres*

Criterion B(ii)

Red Listed bryophytes (26 species)

Campyliadelphus elodes, *Campylium stellatum*, *Cladopodiella fluitans*, *Dicranum bonjeanii*, *Riccardia multifida*, *Scorpidium scorpioides*, *Sphagnum capillifolium*, *Sphagnum contortum*, *Sphagnum rubellum*, *Sphagnum teres*

References

Bouman, A.C. & B.F. van Tooren (1995) Het voorjaarsweekend 1994 naar Soest. *Buxbaumiella* 37: 6-19.



Muiderberg: church, Jewish cemetery & dyke

Hotspot area: 18 ha

Species groups: Lichens

Natura 2000 site: -

Province: Noord-Holland

Criterion B(i)

Lichens on rock (118 species)

Agonimia tristicula, *Alyxoria mougeotii*, *Catillaria atomarioides*, *Circinaria leproscens*, *Enchylium tenax*, *Fellhanera subtilis*, *Gyrophysa gyrocarpa*, *Opegrapha areniseda*, *Pachnolepia pruinata*, *Porpidia crustulata*

References

Sparrius, L.B. (2000) Korstmossen op oude kerken in Nederland. *Buxbaumiella* 52: 32-36.



Schoorlse Duinen & Bergerbosch

Hotspot area: 4307 ha

Natura 2000 site: Noordhollands Duinreservaat, Schoorlse Duinen

Criterion B(i)

Bryophytes of dry nutrient poor grasslands (16 species)

Bryum provinciale, *Campyliadelphus chrysophyllus*, *Campylopus fragilis*, *Ctenidium molluscum*, *Ditrichum flexicaule*, *Lophozia excisa*, *Pleurochaete squarrosa*, *Racomitrium canescens*, *Tortella flavovirens*, *Tortula subulata*

Mushrooms of coastal dunes and salt marshes (36 species)

Campanella caesia, *Clitocybe barbularum*, *Coprinopsis ammophila*, *Geastrum campestre*, *Hygrocybe conicoides*, *Leucoagaricus barssii*, *Peziza ammophila*, *Peziza boltonii*, *Simocybe maritima*, *Stropharia halophila*

Vascular plants of dry grasslands (104 species)

Carlina vulgaris, *Clinopodium acinos*, *Erodium lebelii*, *Orobanche caryophyllacea*, *Orobanche picridis*, *Orobanche purpurea*, *Silene conica*, *Silene otites*, *Viola*

Species groups: Bryophytes, Mushrooms, Lichens, Plants

Province: Noord-Holland

curtisii, *Viola rupestris*

Mushrooms of coniferous forests (250 species)

Chroogomphus rutilus, *Diplomitoporus flavescens*, *Lachnum papyraceum*, *Phlebiopsis gigantea*, *Russula sanguinea*, *Suillus collinitus*, *Tricholoma equestre*

Criterion B(ii)

Red Listed lichens (43 species)

Cladonia ciliata, *Enterographa crassa*, *Lecanora aitema*, *Peltigera canina*, *Peltigera neckeri*, *Pertusaria hymenea*, *Pertusaria leioplaca*, *Physconia perisidiosa*, *Platismatia glauca*, *Tuckermanopsis chlorophylla*

Red Listed macrofungi (419 species)

Boletus rhodoxanthus, *Chamaemyces fracidus*, *Coprinopsis insignis*, *Daldinia vernicosa*, *Geastrum lageniforme*, *Geoglossum arenarium*, *Inocutis rheades*, *Plicaria endocarpoides*, *Roseodiscus formosus*, *Suillus collinitus*

References

- Aptroot, A. (1982) De lichenologische najaarsexcursie 1978 naar Bergen. Buxbaumiella 12: 3-11.
- Oud, M. (2014) De binnenlandse werkweek in Schoorl 1-8 november 2013. Coolia 57: 83-97.
- Putte, A. van der (2011) De excursies in 2010. Coolia 54: 167-184.
- Putte, A. van der (2016) De NMV-excursies in 2015. Coolia 59: 203-222.
- Schokker, J. (2007) Aardkundig excursiepunt 8. De binnenduinrand bij Egmond. Grondboor & Hamer 61: 6-9.



Zwanenwater & Pettemerduinen

Hotspot area: 618 ha

Species groups: Plants

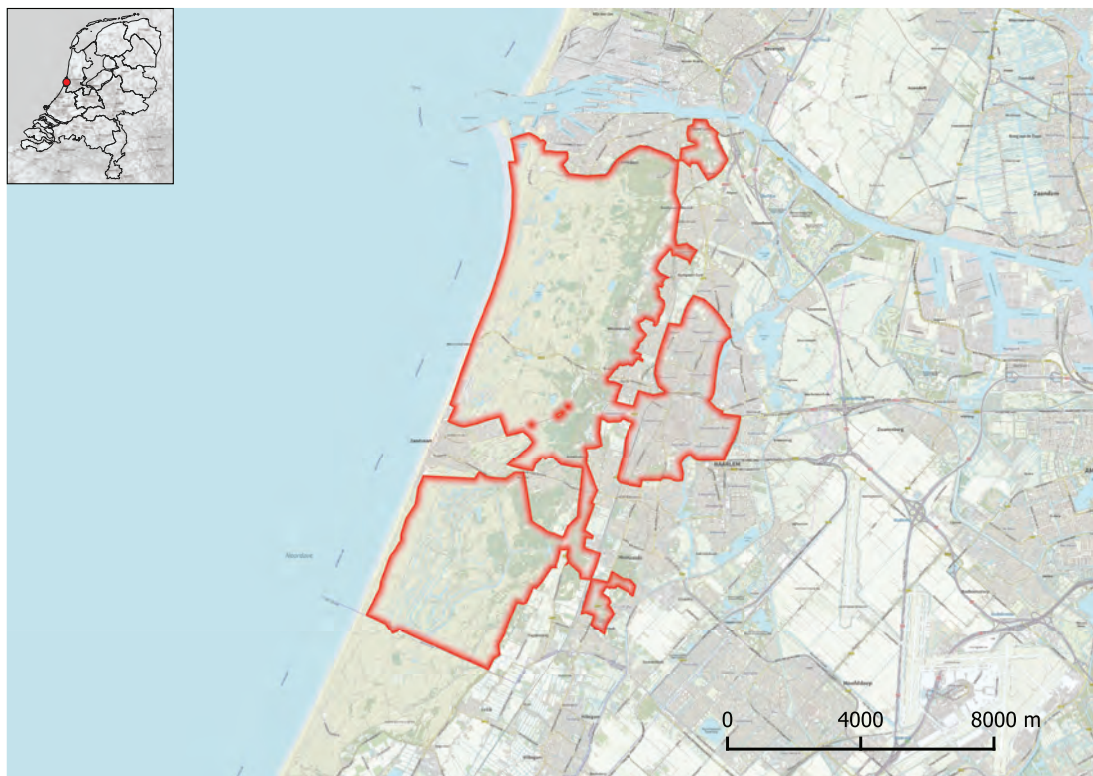
Natura 2000 site: Duinen Den Helder-Callantsoog, Zwanenwater & Pettemerduinen

Province: Noord-Holland

Criterion B(ii)

Red Listed vascular plants (80 species)

Baldellia ranunculoides subsp. ranunculoides,
 Botrychium lunaria, Carex pulicaris, Carlina vulgaris,
 Cladium mariscus, Eleocharis quinqueflora, Platanthe-
 ra bifolia, Potamogeton gramineus, Radiola linoides,
 Schoenus nigricans



Zuid-Kennemerland

Hotspot area: 8252 ha

Natura 2000 site: Kennemerland-Zuid

Species groups: Plants, Bryophytes, Mushrooms, Lichens

Province: Noord-Holland

Criterion B(i)

Vascular plants of dry grasslands (153 species)

Arabis hirsuta subsp. *hirsuta*, *Artemisia campestris* subsp. *maritima*, *Botrychium lunaria*, *Carlina vulgaris*, *Clinopodium acinos*, *Milium vernale*, *Orobancha caryophyllacea*, *Orobancha picridis*, *Viola curtisii*, *Viola hirta*

Vascular plants of forest margins, scrub and felled areas (103 species)

Arabis glabra, *Aristolochia clematitis*, *Doronicum pardalianches*, *Inula conyzae*, *Lithospermum officinale*, *Polygonatum odoratum*

Bryophytes of dry nutrient poor grasslands (19 species)

Bryum provinciale, *Campyliadelphus chrysophyllus*, *Campylopus fragilis*, *Ditrichum flexicaule*, *Encalypta streptocarpa*, *Lophozia excisa*, *Pleurochaete squarrosa*, *Racomitrium canescens*, *Tortella flavovirens*, *Tortula*

subulata

Mushrooms of coastal dunes and salt marshes (32 species)

Clitocybe barbularum, *Coprinopsis ammophila*, *Hebeloma nigellum*, *Hohenbuehelia culmicola*, *Hygrocybe conicoides*, *Leucoagaricus barssii*, *Peziza ammophila*, *Peziza boltonii*, *Stropharia halophila*, *Tulostoma fimbriatum*

Forest lichens (80 species)

Chaenotheca stemonea, *Enterographa crassa*, *Fellhamera ochracea*, *Fuscidea lightfootii*, *Graphis scripta*, *Pertusaria hymenea*, *Pertusaria leioplaca*, *Pyrenula nitida*, *Trapeliopsis pseudogranulosa*, *Usnea subfloridana*

Lichens on wayside trees (109 species)

Alyxoria ochrocheila, *Anaptychia ciliaris*, *Bacidia rubella*, *Caloplaca ulcerosa*, *Cerothallia luteoalba*, *Chrysothrix candelaris*, *Normandina acroglypta*,

Physconia distorta, *Physconia perisidiosa*, *Usnea subfloridana*

Criterion B(ii)

Red Listed vascular plants (153 species)

Arabis hirsuta subsp. *hirsuta*, *Artemisia campestris* subsp. *maritima*, *Botrychium lunaria*, *Carlina vulgaris*, *Clinopodium acinos*, *Milium vernale*, *Orobanchaceae*, *Orobancha picridis*, *Viola curtisii*, *Viola hirta*

Red Listed macrofungi (366 species)

Aureoboletus gentilis, *Cortinarius balteatocumatilis*, *Cortinarius olivaceofuscus*, *Lyophyllum deliberatum*, *Mycena crocata*, *Mycena tintinnabulum*, *Pluteus aurantiorugosus*, *Ramaria aurea*, *Ramaria formosa*, *Ramaria gracilis*

Red Listed lichens (37 species)

Bacidia rubella, *Cerothallia luteoalba*, *Enterographa crassa*, *Graphis scripta*, *Lecanora soralifera*, *Peltigera neckeri*, *Pertusaria hymenea*, *Pertusaria leioplaca*, *Pyrenula nitida*, *Usnea subfloridana*

Criterion B(iii)

Chasmophytic plants (21 species)

Asplenium adiantum-nigrum, *Asplenium ceterach*, *Catapodium rigidum*, *Cyrtomium falcatum*, *Cyrtomium fortunei*, *Cystopteris fragilis*, *Erysimum cheiri*, *Hieracium murorum*, *Pseudofumaria alba*, *Pseudofumaria lutea*

Stinzen forests (80 species)

Arabis glabra, *Aristolochia clematitis*, *Doronicum pardalianches*, *Inula conyzae*, *Lithospermum officinale*, *Ornithogalum nutans*, *Polygonatum odoratum*, *Primula vulgaris*, *Verbascum lychnitis*, *Viola hirta*

References

Denters, T. (2004) Stadsplanten. Fontaine Uitgevers.

Hoopen, V. ten e.a. (2010) Muurplanten in Noord-Holland. Werk- en Adviesgroep Muurplanten Noord-Holland.

Jalink, L. (2011) Wasplaatgraslanden in de Amsterdamse Waterleidingduinen. De resultaten van bijna 10 jaar monitoring. Myco-consult.

Jalink, L.J. (2001) Kleine kop-op-schotel (*Disciseda candida*) bij Zandvoort. *Coolia* 44: 31-32.

Kolk, H. van der, T. van Trigt & L.B. Sparrius (2019) Korstmossenhotspot Landgoed Elswout. *Buxbaumia* 114: 22-25.

Kruijsen, B.W.J.M. & T. Damm (1997) *Bryum provinciale* Philib. (Getand knikmos), een nieuwe duinplant in de Nederlandse mosflora. *Gorteria* 23: 13-20.

Maes, B. & P. Bakker (2002) Evaluatie Beschermingsplan Muurplanten. Muurplantenbeleid in de periode 1988-2000. Ministerie van LNV.

Putte, A. van der (2012) De excursies in 2011. *Coolia* 55: 157-170.

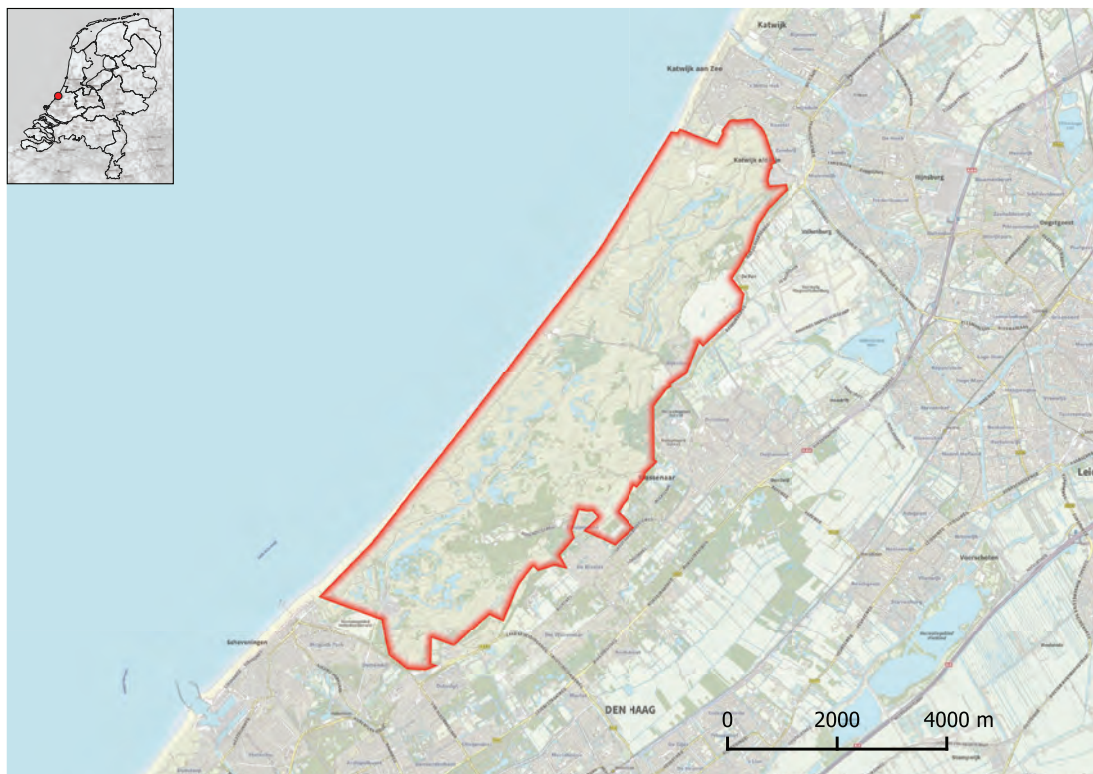
Putte, A. van der (2014) De NMV-excursies in 2012. *Coolia* 57: 7-26.

Putte, A. van der (2015) De NMV-excursies in 2014. *Coolia* 58: 191-205.

Putte, A. van der (2017) De NMV-excursies in 2016. *Coolia* 60: 219-236.

Vries, B. de (2000) De NMV-excursies van 1999. *Coolia* 43: 131-137.

Wieringen, M. van (2016) Muurflora grachten Haarlem: inventarisatie 2015 en trends.



Berkheide & Meijndel

Hotspot area: 2986 ha

Natura 2000 site: Meijndel & Berkheide

Criterion B(i)

Vascular plants of dry grasslands (103 species)

Arabis hirsuta subsp. *hirsuta*, *Artemisia campestris* subsp. *maritima*, *Asparagus officinalis* subsp. *prostratus*, *Carlina vulgaris*, *Erodium lebelii*, *Gentiana cruciata*, *Milium vernale*, *Orobanche caryophyllacea*, *Orobanche picridis*, *Viola curtisii*

Bryophytes of dry nutrient poor grasslands (18 species)

Bryum provinciale, *Campyliadelphus chrysophyllus*, *Ditrichum flexicaule*, *Encalypta streptocarpa*, *Lophozia excisa*, *Pleurochaete squarrosa*, *Racomitrium canescens*, *Rhytidium rugosum*, *Tortella flavovirens*, *Tortula subulata*

Mushrooms of coastal dunes and salt marshes (47 species)

Bolbitius coprophilus, *Coprinopsis ammophilae*, *Disciseda bovista*, *Disciseda candida*, *Geastrum*

Species groups: Plants, Bryophytes, Mushrooms, Lichens

Province: Zuid-Holland

elegans, *Geastrum saccatum*, *Lamprospora tortulae-ruralis*, *Leucoagaricus barssii*, *Leucoagaricus leucothites* var. *carneifolius*, *Omphalina rickenii*

Criterion B(ii)

Red Listed lichens (47 species)

Bacidia bagliettoana, *Caloplaca ulcerosa*, *Cladonia ciliata*, *Cladonia pocillum*, *Peltigera canina*, *Peltigera neckeri*, *Physcia aipolia*, *Scytinium pulvinatum*, *Usnea articulata*, *Usnea subfloridana*

References

Aptroot, A., C.M. van Herk, L.B. Sparrius & J.L. Spier (2000) Excursie naar de duinen bij Wassenaar, met de terrestrische vindplaats van *Usnea articulata* en twee nieuwe parasieten op *Peltigera*. *Buxbaumia* 52: 37-40.

Cate, R.S. ten (1998) De Ganzenhoek, een nieuw excursieterrein voor de PWWP. *Coolia* 41: 177-178.

Gemeente Katwijk (2012) Ontwerp-bestemmingsplan Kustwerk Katwijk. Gemeente Katwijk.

Jalink, L.M. & M.M. Nauta (2002) Kroonjuwelen en andere mycologische snuisterijen 6: een broekbos in de kwelzone aan de binnenduinrand. *Coolia* 45: 223-226.

Jalink, L.M., M.M. Nauta & R. Sullock Enzlin (1997) Een dag in de duinen in oktober - *Lactarius sanguifluus* nieuw voor Nederland, en nog meer leuke dingen. *Coolia* 40: 188-190.

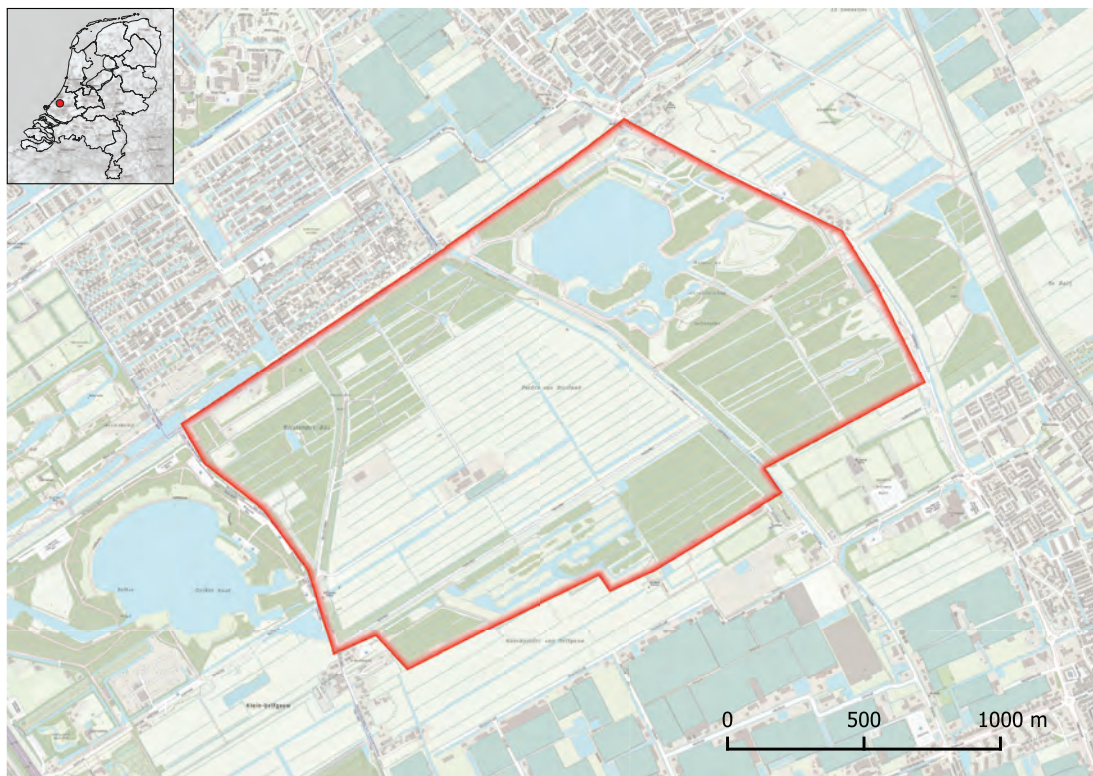
Ommering, G., G. van der Bent, & R. van Rossum (2017) Bijzonder Berkheide. Stichting Berkheide Coepelduijnen Katwijk.

Putte, A. van der (2015) De NMV-excursies in 2014. *Coolia* 58: 191-205.

Putte, A. van der (2017) De NMV-excursies in 2016. *Coolia* 60: 219-236.

Putte, A. van der (2019) De NMV-excursies in 2017. *Coolia* 62: 5-26.

Vaart, K. van der (2013) Het gaat wel goed met de mossen in Meijendel. *Buxbaumiella* 97: 1-15.



Bieslandse Bos

Hotspot area: 297 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Zuid-Holland

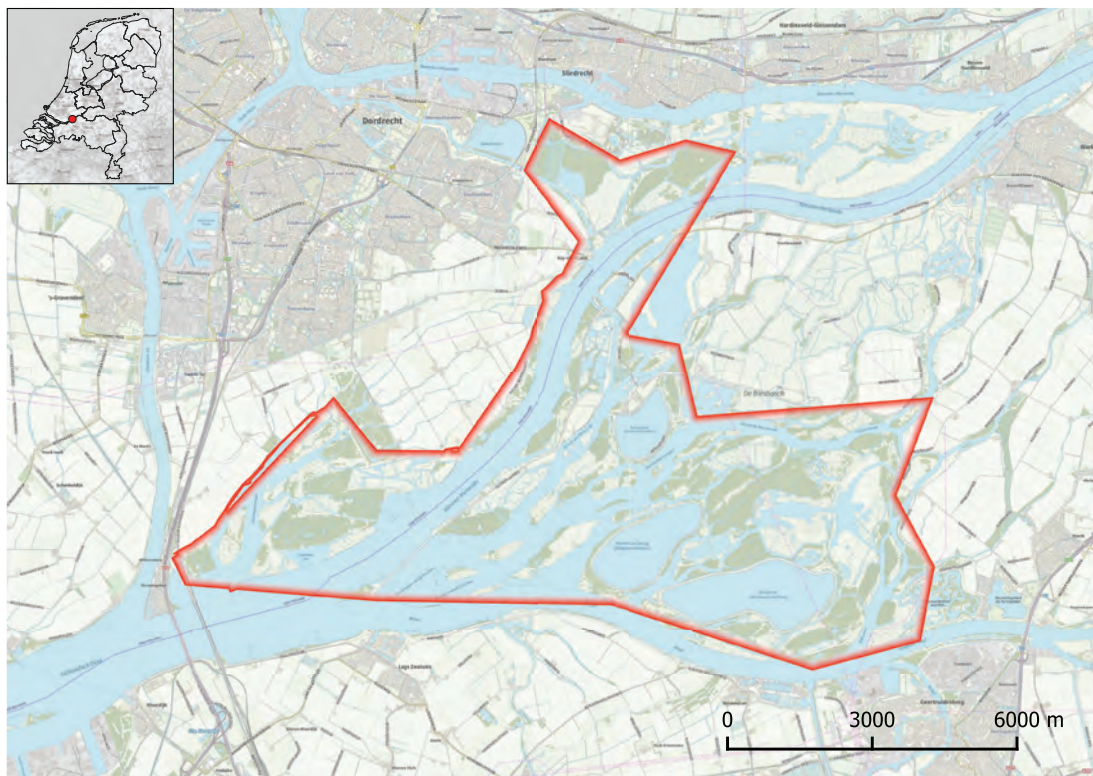
Criterion B(i)

Pioneer bryophytes on trees (31 species)

Cololejeunea minutissima, *Metzgeria fruticulosa*, *Neckera pumila*, *Orthotrichum acuminatum*, *Orthotrichum obtusifolium*, *Orthotrichum pallens*, *Orthotrichum patens*, *Orthotrichum rogeri*, *Pylaisia polyantha*, *Ulota coarctata*

References

Vaart, K. van der (2010) Twee jaar mossen in Pijnacker-Nootdorp. *Buxbaumiella* 85: 26-35.



Biesbosch & Nieuwe Hollandse Waterlinie

Hotspot area: 7662 ha

Natura 2000 site: Biesbosch

Species groups: Bryophytes

Province: Zuid-Holland

Criterion B(i)

Bryophytes on rocky shores (17 species)

Brachythecium plumosum, *Cinclidotus danubicus*, *Cinclidotus fontinaloides*, *Cinclidotus riparius*, *Cirriphyllum crassinervium*, *Dichodontium pellucidum*, *Didymodon nicholsonii*, *Didymodon sinuosus*, *Fissidens arnoldii*, *Octodicerias fontanum*

Pioneer bryophytes on calcareous rock (19 species)

Brachythecium plumosum, *Cinclidotus danubicus*, *Cirriphyllum crassinervium*, *Dichodontium pellucidum*, *Didymodon nicholsonii*, *Grimmia anodon*, *Grimmia orbicularis*, *Grimmia ovalis*, *Octodicerias fontanum*, *Schistidium elegantulum*

Pioneer bryophytes on trees (44 species)

Cololejeunea minutissima, *Habrodon perpusillus*, *Leucodon sciuroides*, *Orthotrichum obtusifolium*, *Orthotrichum pallens*, *Orthotrichum patens*, *Orthotrichum pumilum*, *Orthotrichum rogeri*, *Orthotrichum*

scanicum, *Uloa coarctata*

References

Greven, H.C. (1990) *Grimmia ovalis* (Hedw.) Lindb. and *Grimmia orbicularis* Bruch ex Wils., two epilithic moss species new for The Netherlands. *Lindbergia* 16: 19-21.

Greven, H.C. (1991) *Grimmia tergestina* Tomm. invading northwestern Europe? Recent findings in Belgium and The Netherlands. *Journal of Bryology* 16: 383-386.

Pluijm, A. van der (1995) De mos- en korstmosflora van de Biesbosch, inventarisatieperiode 1983-1992. Staatsbosbeheer regio Brabant West District Biesbosch. SBB-rapport 1995-3, Werkendam.

Pluijm, A. van der (2000) *Orthotrichum consimile* Mitt. in the Biesbosch, new to the Netherlands. *Lindbergia* 25: 25-27.

Pluijm, A. van der (2004) Species of *Orthotrichum* new to the Netherlands. *Lindbergia* 29: 17-32.



Coepelduinen

Hotspot area: 119 ha

Natura 2000 site: Coepelduynen

Species groups: Mushrooms

Province: Zuid-Holland

Criterion B(i)

Mushrooms of coastal dunes and salt marshes (32 species)

Clitocybe barbularum, *Conocybe dunensis*, *Geastrum saccatum*, *Hygrocybe conicoides*, *Leucoagaricus barsii*, *Peziza ammophila*, *Peziza boltonii*, *Simocybe maritima*, *Stropharia halophila*, *Tulostoma melanocyclum*

References

Putte, A. van der (2012) De excursies in 2011. Coolia 55: 157-170.



Den Haag city center

Hotspot area: 5499 ha

Natura 2000 site: Meijndel & Berkheide, Westduinpark & Wapendal

Species groups: Plants

Province: Zuid-Holland

Criterion B(iii)

Chasmophytic plants (20 species)

Asplenium adiantum-nigrum, *Asplenium ceterach*, *Asplenium trichomanes*, *Catapodium rigidum*, *Cyrtomium falcatum*, *Cyrtomium fortunei*, *Erysimum cheiri*, *Hieracium murorum*, *Pseudofumaria alba*, *Pseudofumaria lutea*

References

Denters, T. (2004) *Stadsplanten*. Fontaine Uitgevers.

Maes, B. & P. Bakker (2002) *Evaluatie Beschermingsplan Muurplanten*. Muurplantenbeleid in de periode 1988-2000. Ministerie van LNV.

Vogelaar, E. (2016) *Stadsgeheimen: Muurplanten in Den Haag*. *De Levende Natuur* 117: 124-125.



Dunes Goeree & Kwade Hoek

Hotspot area: 649 ha

Species groups: Plants

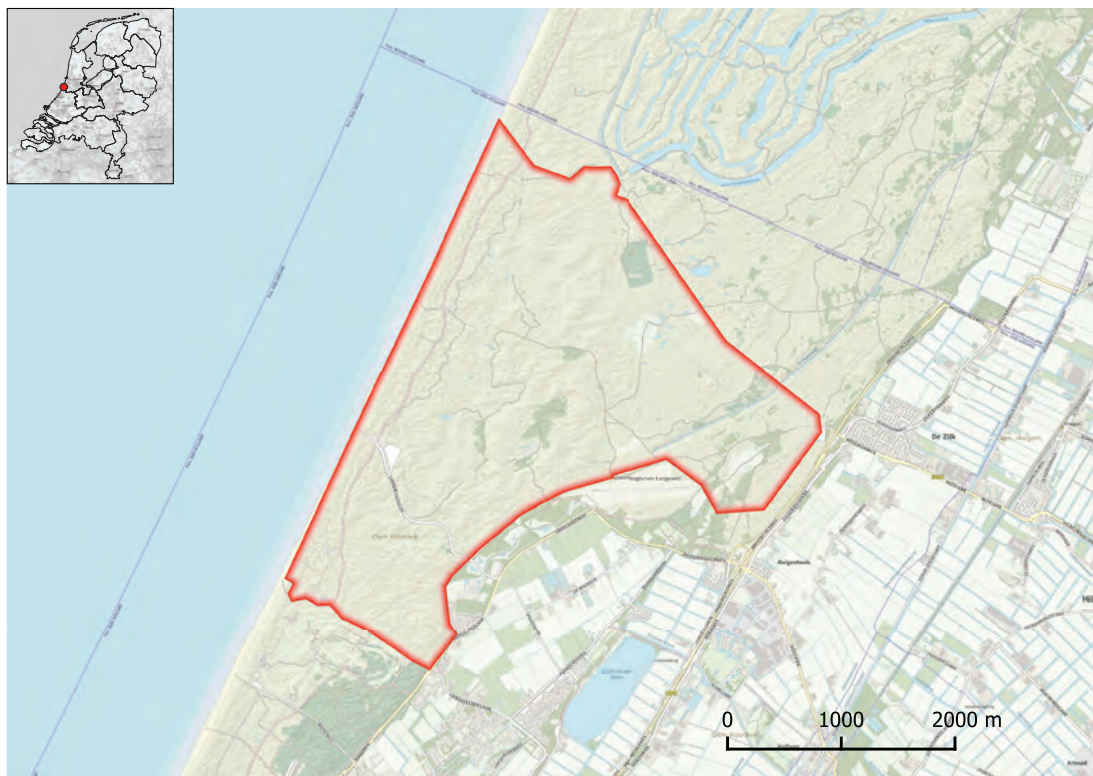
Natura 2000 site: Duinen Goeree & Kwade Hoek

Province: Zuid-Holland

Criterion B(ii)

Red Listed vascular plants (95 species)

Blysmus compressus, *Carex caryophylla*, *Cochlearia officinalis* subsp. *officinalis*, *Eleocharis quinqueflora*, *Eryngium maritimum*, *Juncus maritimus*, *Oenanthe lachenalii*, *Parapholis strigosa*, *Radiola linoides*, *Schoenus nigricans*



Dunes Noordwijkerhout & De Zilk

Hotspot area: 1007 ha

Natura 2000 site: Kennemerland-Zuid

Species groups: Bryophytes, Mushrooms

Province: Zuid-Holland

Criterion B(i)

Bryophytes of dry nutrient poor grasslands (17 species)

Bryum provinciale, *Campyliadelphus chrysophyllus*, *Ditrichum flexicaule*, *Encalypta streptocarpa*, *Lophozia excisa*, *Pleurochaete squarrosa*, *Racomitrium canescens*, *Rhytidium rugosum*, *Tortella flavovirens*, *Tortula subulata*

Mushrooms of coastal dunes and salt marshes (37 species)

Campanella caesia, *Conocybe dunensis*, *Coprinopsis ammophilae*, *Deconica pratensis*, *Entoloma corvinum*, *Geastrum elegans*, *Geastrum saccatum*, *Hohenbuehelia culmicola*, *Lamprospora retinosa*, *Lamprospora tortulae-ruralis*

Mushrooms of meadows and grasslands (106 species)

Geastrum corollinum, *Geastrum elegans*, *Geastrum saccatum*, *Hygrocybe mucronella*, *Leratiomyces laetis-*

simus, *Omphalina praticola*

References

- Vaessen, A., Noordeloos, C. & Snater, H. (2015) Paddenstoelenparadijs witte duinen. *Coolia* 58: 63-70.
- Vries, B. de (2000) De NMV-excursies van 1999. *Coolia* 43: 131-137.
- Weeda, E.J. (2008) Mosvondsten in de duinen: wapenfeiten uit twee eeuwen. *Buxbaumia* 81: 22-33.



Dunes of Oostvoorne

Hotspot area: 1393 ha

Natura 2000 site: Voornes Duin

Species groups: Plants

Province: Zuid-Holland

Criterion B(i)

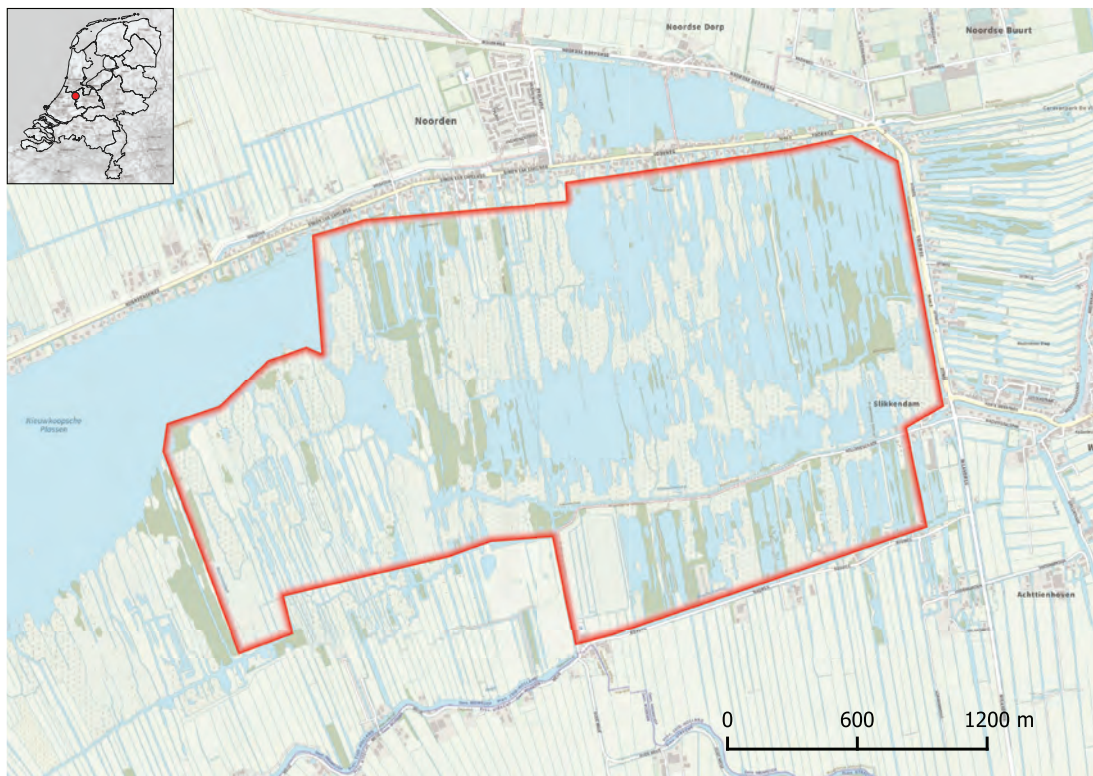
Vascular plants of coastal dunes and salt marshes (56 species)

Calammophila baltica, *Carex extensa*, *Cerastium diffusum*, *Eryngium maritimum*, *Euphorbia paralias*, *Glaucium flavum*, *Oenanthe lachenalii*, *Parapholis strigosa*, *Sagina maritima*, *Salsola kali*

Criterion B(ii)

Red Listed vascular plants (140 species)

Baldellia ranunculoides subsp. *ranunculoides*, *Blysmus compressus*, *Carlina vulgaris*, *Eleocharis quinqueflora*, *Euphorbia paralias*, *Gentianella amarella*, *Liparis loeselii*, *Oenanthe lachenalii*, *Salsola kali*, *Viola hirta*



Nieuwkoopse Plassen & De Haeck

Hotspot area: 578 ha

Natura 2000 site: Nieuwkoopse Plassen & De Haeck

Species groups: Bryophytes

Province: Zuid-Holland

Criterion B(i)

Bryophytes of marshland and wet grasslands (23 species)

Calliergon giganteum, *Campyliadelphus elodes*, *Campylium stellatum*, *Dicranum bonjeanii*, *Pellia neesiana*, *Riccardia multifida*, *Ricciocarpos natans*, *Scorpidium scorpioides*, *Sphagnum contortum*, *Sphagnum teres*

verlandingstransecten. Buxbaumiella 106: 25-49.

Kortselius, M.J.H. & Th.B.M. Kerkhof (1997) De mossen van het voorjaarsweekend in Woerden 1996. Buxbaumiella 42: 38-60.

References

Held, A.J. den & I.H.M. Bense (2017) Veranderingen in de mosvegetatie van de Nieuwkoopse Plassen (incl. De Haak) tussen 1967/1972 en 2009/2013. 2. Veranderingen in veenmosrietland en moerasheide. Buxbaumiella 108: 16-35.

Held, A.J. den (2016) Veranderingen in de mosvegetatie van de Nieuwkoopse Plassen (incl. De Haak) tussen 1967/1972 en 2009/2013. 1. Gebiedsbeschrijving - Vroegere mossengegevens - Veranderingen in vier



Oevers Sophiapolder

Hotspot area: 20 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Zuid-Holland

Criterion B(i)

Bryophytes on rocky shores (13 species)

Amblystegium fluviatile, *Amblystegium tenax*, *Cinclidotus fontinaloides*, *Cinclidotus riparius*, *Cirriphyllum crassinervium*, *Didymodon nicholsonii*, *Didymodon sinuosus*, *Fissidens crassipes*, *Hygrohypnum luridum*, *Octodiceras fontanum*



Rocky shores Oude Maas

Hotspot area: 233 ha

Natura 2000 site: Oude Maas

Species groups: Bryophytes

Province: Zuid-Holland

Criterion B(i)

Bryophytes on rocky shores (15 species)

Amblystegium tenax, *Cinclidotus danubicus*, *Cinclidotus fontinaloides*, *Cirriphyllum crassinervium*, *Didymodon nicholsonii*, *Didymodon sinuosus*, *Fissidens arnoldii*, *Fissidens crassipes*, *Hygrohypnum luridum*, *Octodiceras fontanum*



Solleveld

Hotspot area: 226 ha

Natura 2000 site: Solleveld & Kapittelduinen

Species groups: Lichens

Province: Zuid-Holland

Criterion B(i)

Lichens in coastal dunes (32 species)

Agonimia tristicula, *Cetraria aculeata*, *Cladonia ciliata*, *Cladonia floerkeana*, *Cladonia foliacea*, *Cladonia pocillum*, *Cladonia rei*, *Diploschistes muscorum*, *Peltigera canina*, *Peltigera neckeri*

References

Toetenel, W.J. (2013) Korstmossen in Solleveld. *Hollands Duinen* 62: 38-52.

Vertegaal, K. (2009) Solleveld. Een uniek duingebied. *Hollands Duinen* 53: 3-5.



Westduinen Ouddorp

Hotspot area: 128 ha

Natura 2000 site: Duinen Goeree & Kwade Hoek

Species groups: Mushrooms

Province: Zuid-Holland

Criterion B(i)

Mushrooms of meadows and grasslands (111 species)

Bovistella radicata, *Entoloma atrocoeruleum*, *Entoloma corvinum*, *Entoloma griseocyaneum*, *Entoloma prunuloides*, *Hygrocybe lacmus*, *Hygrocybe nitrata*, *Lepista rickenii*, *Phaeosphaeria herpotrichoides*, *Pleurotus eryngii*

References

Putte, A. van der (red.) (2015) Duinstruweel en Fladderiep. Verslag van de binnenlandse werkweek 2014. Coolia 58: 139-151.



Het Zwin

Hotspot area: 573 ha

Natura 2000 site: Zwin & Kievittepolder

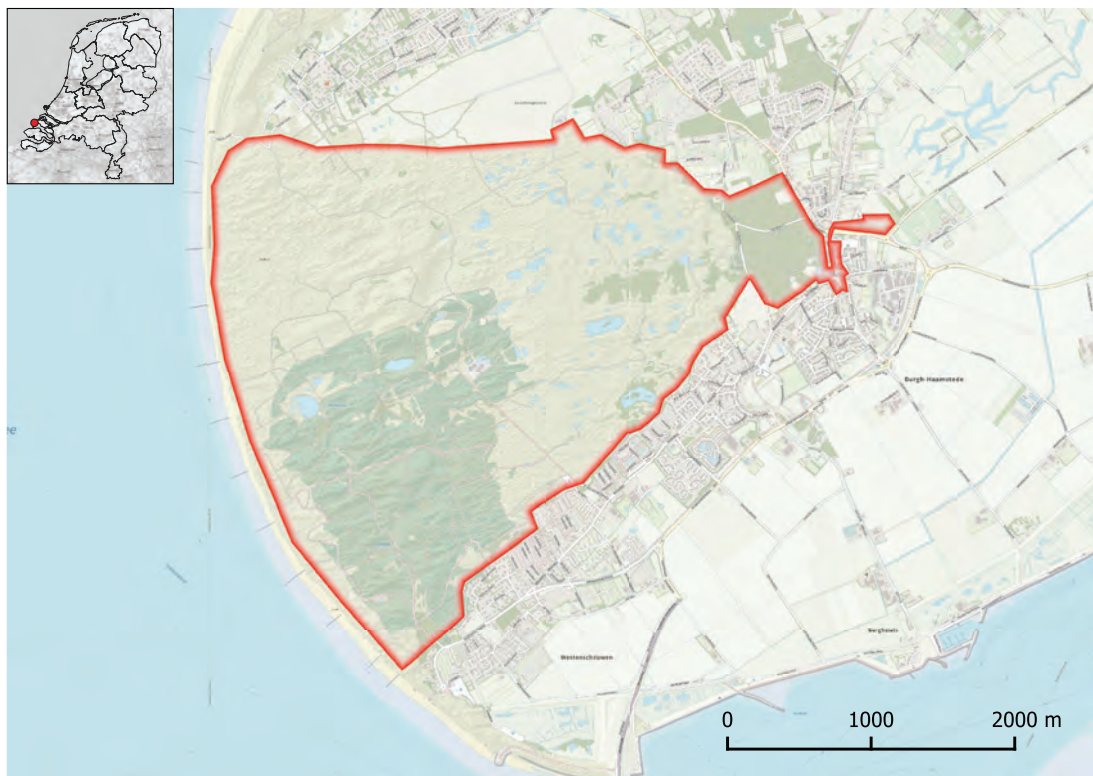
Species groups: Plants

Province: Zeeland

Criterion B(i)

Vascular plants of coastal dunes and salt marshes (53 species)

Beta vulgaris subsp. *maritima*, *Cerastium diffusum*, *Crambe maritima*, *Crithmum maritimum*, *Eryngium maritimum*, *Glaucium flavum*, *Juncus maritimus*, *Oenanthe lachenalii*, *Parapholis strigosa*, *Salsola kali*



Kop van Schouwen

Hotspot area: 967 ha

Natura 2000 site: Kop van Schouwen

Species groups: Bryophytes, Lichens

Province: Zeeland

Criterion B(i)

Pioneer bryophytes on calcareous rock (13 species)

Bryum radiculosum, *Didymodon luridus*, *Fissidens gracilifolius*, *Grimmia orbicularis*, *Grimmia pulvinata*, *Gyroweisia tenuis*, *Orthotrichum anomalum*, *Rhynchostegium confertum*, *Tortula marginata*, *Tortula muralis*

Lichens in coastal dunes (35 species)

Agonimia tristicula, *Cladonia ciliata*, *Cladonia pocillum*, *Cladonia rei*, *Diploschistes muscorum*, *Peltigera canina*, *Peltigera hymenina*, *Peltigera neckeri*, *Platismatia glauca*, *Scytinium gelatinosum*

hoenicea, *Platismatia glauca*, *Usnea subfloridana*

References

Pluijm, A. van der (2009) Bryologisch verslag van het najaarsweekend 1994 op Schouwen. *Buxbaumiella* 83: 19-22.

Sluiter, H. (2010) Herstel van de dynamische natuur van de Kop van Schouwen. *De Levende Natuur* 111: 264-265.

Toetenel, W.J., A. Aptroot & L.B. Sparrius (2012) De licheenflora van de Kop van Schouwen: een vergelijking over vier decennia. *Buxbaumiella* 93: 6-21.

Criterion B(ii)

Red Listed lichens (30 species)

Bacidia arceutina, *Cladonia ciliata*, *Cladonia pocillum*, *Diploschistes muscorum*, *Enterographa crassa*, *Peltigera canina*, *Peltigera neckeri*, *Phaeophyscia endop-*



Veere, Grote Kerk church and churchyard

Hotspot area: 0,9 ha

Species groups: Lichens

Natura 2000 site: -

Province: Zeeland

Criterion B(iii)

Historical buildings and cemeteries (Red Listed lichens) (6 species)

Hypogymnia physodes, Lecanora conizaeoides, Lecanora orosthea, Lempholemma polyanthes, Variospora thallincola, Verrucaria erichsenii

References

Aptroot, A. (2004) Lichenen in Veere: 115 soorten in een kilometerhok. Buxbaumia 66: 50-52.



Verdrongen Zwarte Polder

Hotspot area: 161 ha

Natura 2000 site: -

Species groups: Plants

Province: Zeeland

Criterion B(i)

Vascular plants of coastal dunes and salt marshes (53 species)

Atriplex glabriuscula, *Carex extensa*, *Cerastium diffusum*, *Convolvulus soldanella*, *Crithmum maritimum*, *Eryngium maritimum*, *Juncus maritimus*, *Parapholis strigosa*, *Sagina maritima*, *Salsola kali*

References

Beeftink, W.G., M.C. Daane & W. de Munck (1986) Vegetatiedynamiek in de Verdrongen Zwarte Polder over de periode 1970-1984. *De Levende Natuur* 87: 137-143.



Vroongronden Schouwen

Hotspot area: 282 ha

Natura 2000 site: Kop van Schouwen

Species groups: Plants

Province: Zeeland

Criterion B(i)

Vascular plants of nutrient-rich pioneer habitats (75 species)

Apium repens, *Blackstonia perfoliata* subsp. *serotina*, *Blysmus compressus*, *Centaurium littorale*, *Centunculus minimus*, *Crassula tillaea*, *Limosella aquatica*, *Parentucellia viscosa*, *Radiola linoides*, *Sagina nodosa*



Coovelsbos

Hotspot area: 8.5 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Noord-Brabant

Criterion B(i)

Mushrooms of scrub and coppices (55 species)

Aleurodiscus aurantius, *Ascozonus woolhopensis*, *Botryobasidium laeve*, *Ceriporiopsis mucida*, *Conocybe subpallida*, *Crocicreas amenti*, *Helicogloea farinacea*, *Hyphoderma cryptocallimon*, *Mollisia rosae* var. *rosae*, *Phlebia subochracea*

Mushrooms of swamp woodland (326 species)

Athelopsis glaucina, *Fomitiporia punctata*, *Helicogloea lagerheimii*, *Hymenochaete cinnamomea*, *Hyphoderma corrugata*, *Mycena pterigena*, *Oxyporus corticola*, *Oxyporus obducens*, *Stypella crystallina*, *Tomentella crinalis*

Entoloma formosum, *Entoloma neglectum*, *Entoloma porphyrophaeum*, *Mycena pterigena*, *Oxyporus obducens*, *Phallus impudicus* var. *togatus*

References

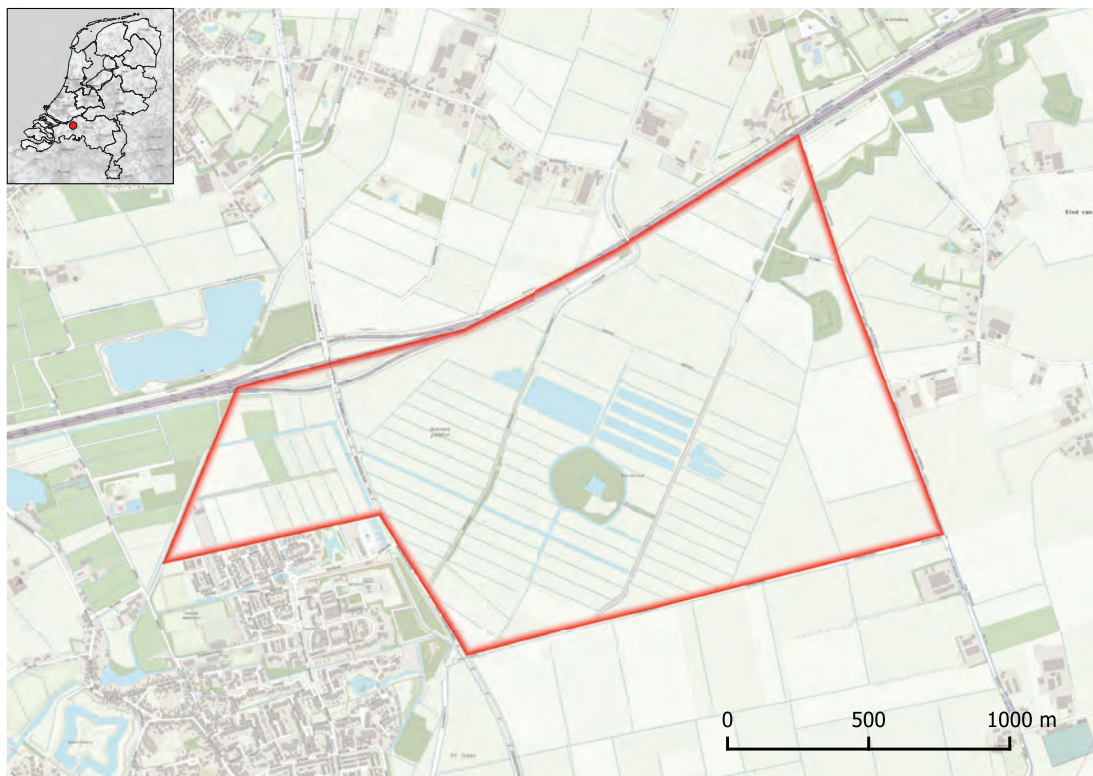
Lammers, H., Hooff, H. van, Raaijkamers, L., Kuik, J. van, & Boudewijns, T. (2012) Niet zomaar een bos...!! Natuurstudiegroep Coalescens.

Raaijmakers, L., H. van Hooff, H. Lammers, L. van der Leij & J. van Kuik (1997) Een beekdalbos in Brabant de eerste mycologische indrukken van een onderzoek in het Coovels bos. *Coolia* 40: 8-22.

Criterion B(ii)

Red Listed macrofungi (227 species)

Chrysomphalina grossula, *Coprinellus congregatus*, *Coprinellus marculentus*, *Entoloma corvinum*,



Binnenpolder Terheijden

Hotspot area: 260 ha

Natura 2000 site: -

Species groups: Plants

Province: Noord-Brabant

Criterion B(i)

Vascular plants of fresh water and river banks (120 species)

Apium inundatum, *Baldellia ranunculoides* subsp. *ranunculoides*, *Cladium mariscus*, *Myriophyllum alterniflorum*, *Potamogeton alpinus*, *Potamogeton gramineus*, *Potamogeton obtusifolius*, *Potamogeton praelongus*, *Schoenoplectus triqueter*, *Sparganium natans*

References

Cools, J., Y. van der Velde, J. Runhaar & R. Stuurman (2006) Herstel- en ontwikkelplan Schraallanden. Provincie Noord-Brabant.



De Blaak & Kaaistoep

Hotspot area: 538 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Noord-Brabant

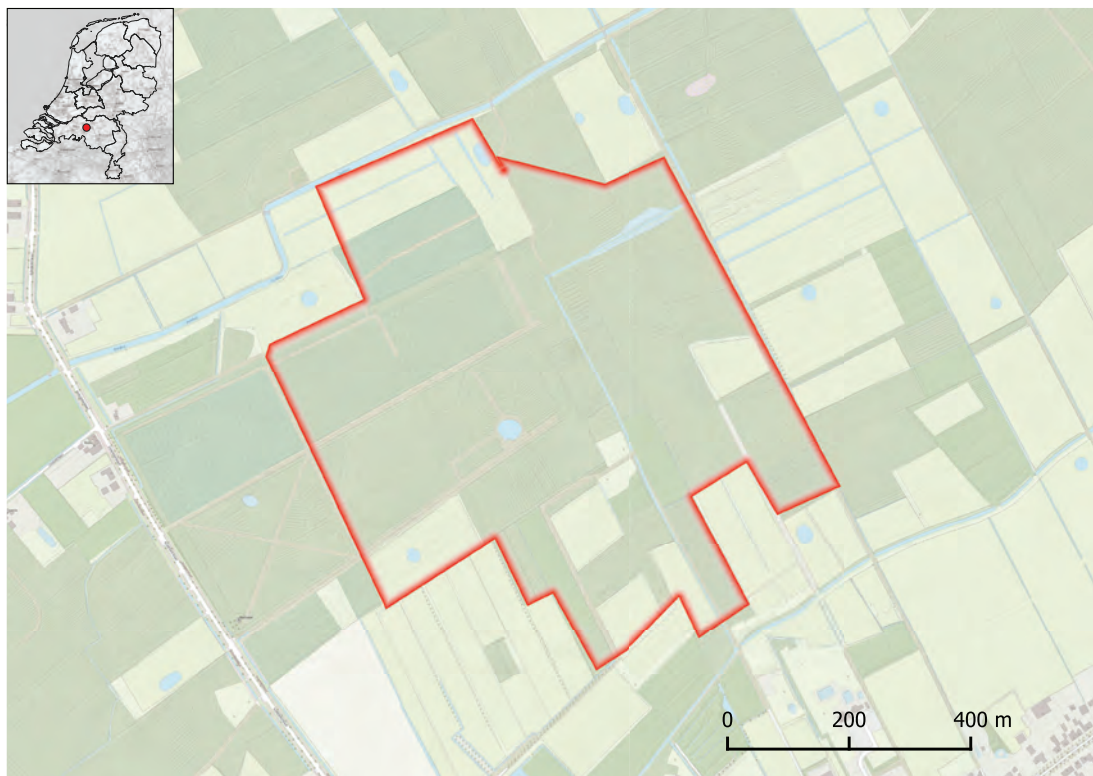
Criterion B(i)

Mushrooms of coniferous forests (158 species)

Arachnopeziza obtusipila, *Coniochaeta malacotricha*, *Coniophora arida* var. *suffocata*, *Cortinarius depressus*, *Lachnellula calycina*, *Lophium mytilinum*, *Lyophyllum ozes*, *Neonectria fuckeliana*, *Paullicorticium pearsonii*, *Pluteus atromarginatus*

Mushrooms of heaths and inland dunes (16 species)

Clavaria argillacea, *Claviceps microcephala*, *Deconica montana*, *Galerina pumila*, *Hypholoma elongatum*, *Neottiella rutilans*, *Octospora humosa*, *Omphalina chlorocyanea*, *Resinomycena saccharifera*, *Roseodiscus formosus*



De Brand: Tiend

Hotspot area: 51 ha

Natura 2000 site: Loonse en Drunense Duinen & Leemkuilen

Species groups: Mushrooms

Province: Noord-Brabant

Criterion B(ii)

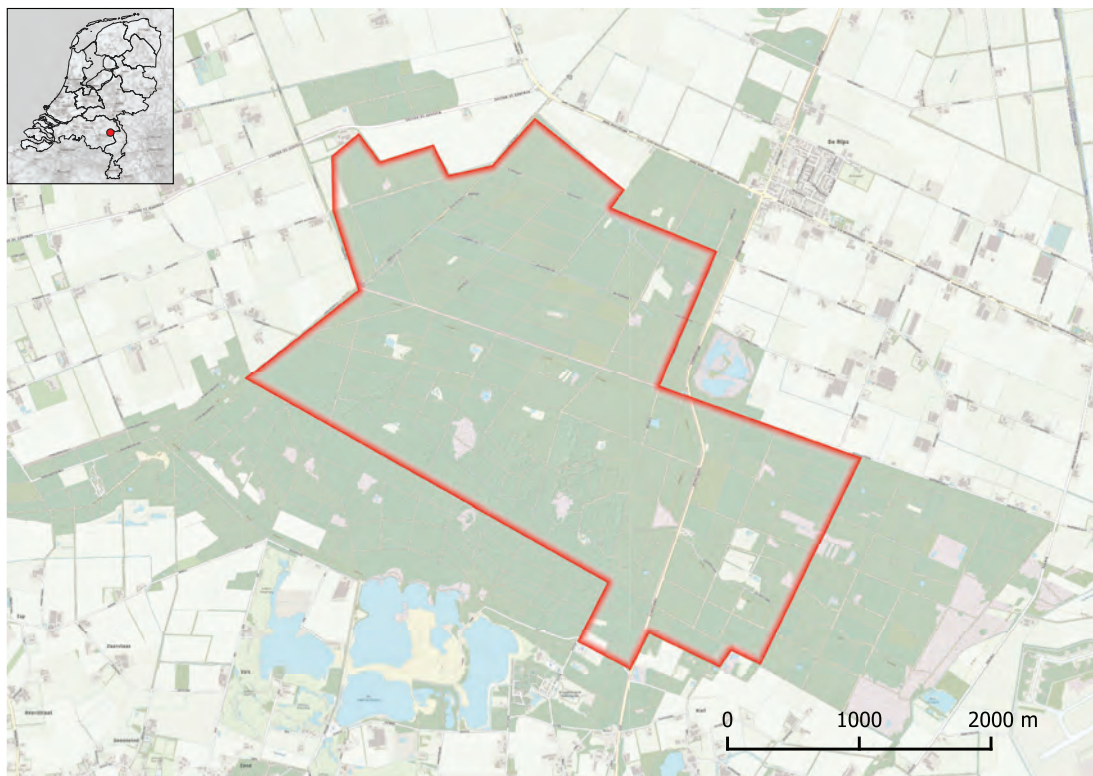
Red Listed macrofungi (134 species)

Camarophyllopsis schulzeri, *Conocybe aurea*, *Entoloma exile*, *Kotlabaea deformis*, *Lyophyllum ozes*, *Mycena meliigena*, *Ombrophila lilacina*, *Peziza succosella*, *Pluteus aurantiorugosus*, *Tricholoma sciodes*

References

Putte, A. van der (2011) De excursies in 2010. *Coolia* 54: 167-184.

Putte, A. van der (2014) De NMV-excursies in 2012. *Coolia* 57: 7-26.



De Stippelberg

Hotspot area: 966 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Noord-Brabant

Criterion B(i)

Bryophytes of heaths and forested heaths (29 species)

Cephaloziella hampeana, *Cephaloziella rubella*, *Ditrichum lineare*, *Ditrichum pusillum*, *Hypnum imponens*, *Jungermannia caespiticia*, *Nardia geoscypus*, *Odontschisma denudatum*, *Oligotrichum hercynicum*, *Pogonatum nanum*

Bryophytes of nutrient poor forests (42 species)

Brachythecium oedipodium, *Bryum bornholmense*, *Calypogeia integristipula*, *Dicranum flagellare*, *Hypnum pallescens*, *Kurzia sylvatica*, *Ptilium crista-castrensis*, *Scapania nemorea*, *Sematophyllum substrumulosum*, *Sphagnum quinquefarium*

References

Kersten, J. & R. van den Bosch (2015) Mossen van de Stippelberg. *Buxbaumiella* 102: 21-29.



Forests Astense Aa

Hotspot area: 86 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Noord-Brabant

Criterion B(i)

Pioneer bryophytes on trees (35 species)

Leucodon sciuroides, *Orthotrichum acuminatum*,
Orthotrichum obtusifolium, *Orthotrichum pallens*,
Orthotrichum patens, *Orthotrichum pumilum*, *Ortho-*
trichum rogeri, *Orthotrichum rupestre*, *Orthotrichum*
scanicum, *Zygodon rupestris*



Forests of Someren-Eind

Hotspot area: 87 ha

Natura 2000 site: -

Species groups: Bryophytes

Province: Noord-Brabant

Criterion B(i)

Pioneer bryophytes on trees (32 species)

Leucodon sciuroides, *Neckera pumila*, *Orthotrichum obtusifolium*, *Orthotrichum patens*, *Orthotrichum pumilum*, *Orthotrichum rupestre*, *Orthotrichum scanicum*, *Platygyrium repens*, *Ulotia coarctata*, *Zygodon rupestris*

References

Bijlsma, R.J. (2005) Vondsten van zeldzame en bedreigde mossen 2. *Buxbaumiella* 71: 57-62.



Goudberg

Hotspot area: 8.8 ha

Natura 2000 site: -

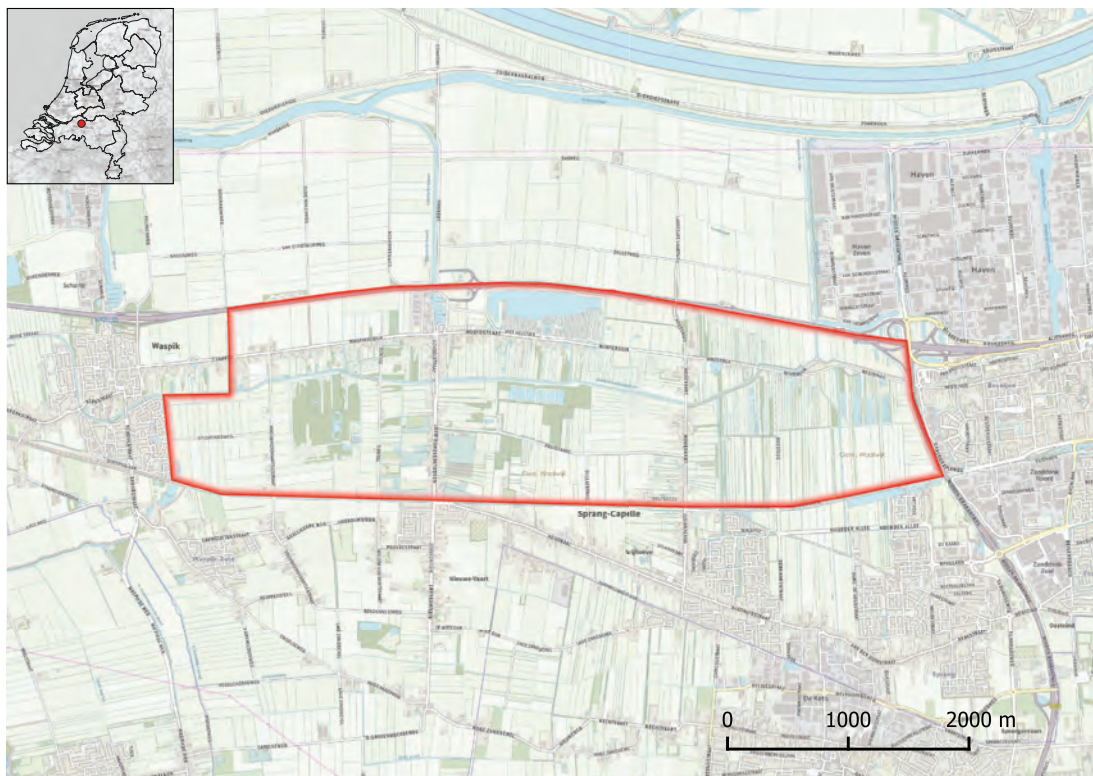
Species groups: Bryophytes

Province: Noord-Brabant

Criterion B(ii)

Red Listed bryophytes (22 species)

Brachythecium rivulare, Cephalozia macrostachya, Cephaloziella rubella, Cladopodiella fluitans, Orthotrichum consimile, Sphagnum capillifolium, Sphagnum flexuosum, Sphagnum molle, Sphagnum rubellum, Warnstorfia exannulata



Langstraat

Hotspot area: 983 ha

Natura 2000 site: Langstraat

Species groups: Plants

Province: Noord-Brabant

Criterion B(i)

Vascular plants of fresh water and river banks (135 species)

Apium inundatum, *Baldellia ranunculoides* subsp. *ranunculoides*, *Calla palustris*, *Cicuta virosa*, *Cladium mariscus*, *Potamogeton alpinus*, *Potamogeton gramineus*, *Ranunculus hederaceus*, *Schoenoplectus triquetus*, *Sparganium natans*



Leemputten Dorst

Hotspot area: 375 ha

Natura 2000 site: -

Species groups: Mushrooms

Province: Noord-Brabant

Criterion B(i)

Mushrooms of farmland, parks, cities and roadsides
(120 species)

Coprinellus congregatus, *Coprinellus heterothrix*,
Coprinopsis romagnesiana, *Deconica flocculosa*,
Hydropisphaera arenula, *Lacrymaria pyrotricha*,
Lamprospora carbonicola, *Olla transiens*, *Phaeolepiota*
aurea, *Valsa nivea*

Mushrooms of heaths and inland dunes (24 species)

Aleuria bicucullata, *Clavaria kriegelsteineri*, *Daldinia*
vernica, *Deconica montana*, *Geoglossum aren-*
arium, *Neottiella rutilans*, *Neottiella vivida*, *Octospora*
humosa, *Omphalina mutila*

Mushrooms of meadows and grasslands (127 species)

Clavaria greletii, *Clavaria straminea*, *Clavulinopsis*
subtilis, *Coprinopsis ephemeroides*, *Entoloma inca-*
num, *Hemimycena ignobilis*, *Marasmiellus tricolor*,
Peziza bovina, *Psathyrella hirta*, *Thecotheus crustaceus*

Mushrooms of scrub and coppices (45 species)

Alnicola amarescens, *Alnicola badiolateritia*, *Auricula-*
ria auricula-judae, *Botryobasidium laeve*, *Clavicornia*
taxophila, *Conocybe subpallida*, *Gaeastrum triplex*,
Hyaloscypha daedaleae, *Inocybe acuta*

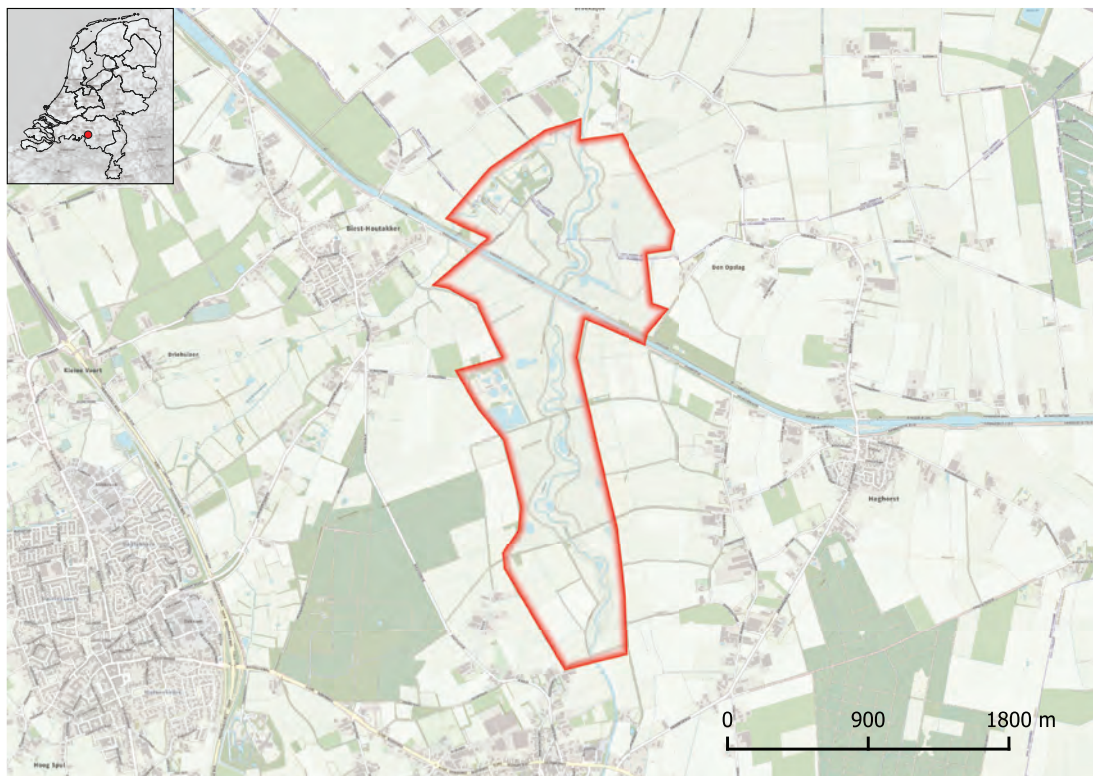
Criterion B(ii)

Red Listed macrofungi (292 species)

Callistosporium luteolivaceum, *Caloscypha fulgens*,
Clavaria greletii, *Cortinarius bivelus*, *Entoloma aprile*,
Entoloma hirtum, *Geoglossum arenarium*, *Limacella*
glioderma, *Limacella guttata*, *Mycena meliigena*

References

- Putte, A. van der (2015) De NMV-excursies in 2014.
Coolia 58: 191-205.
- Putte, A. van der (2017) De NMV-excursies in 2016.
Coolia 60: 219-236.



Pools nature development Dal van de Reusel

Hotspot area: 280 ha

Species groups: Bryophytes

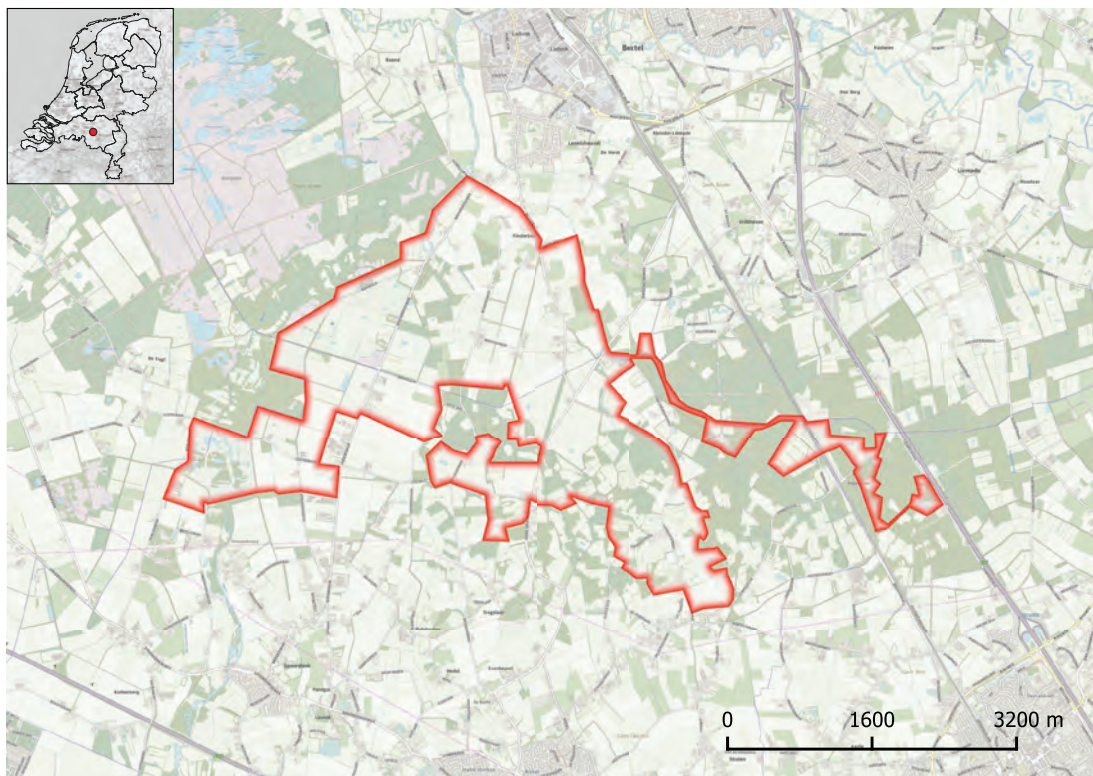
Natura 2000 site: Kempenland-West

Province: Noord-Brabant

Criterion B(i)

Bryophytes of damp soil (22 species)

Archidium alternifolium, *Blasia pusilla*, *Bryum intermedium*, *Bryum knowltonii*, *Bryum warneum*, *Fossombronia incurva*, *Pleuridium subulatum*, *Pohlia wahlenbergii*, *Riccia beyrichiana*, *Riccia canaliculata*



Pools rural area Kampina & Groene Woud

Hotspot area: 1256 ha

Species groups: Bryophytes

Natura 2000 site: Kampina & Oisterwijkse Vennen

Province: Noord-Brabant

Criterion B(i)

Bryophytes of bare tilled land (33 species)

Anthoceros agrestis, *Bryum violaceum*, *Pseudocrossidium revolutum*, *Riccia bifurca*, *Riccia subbifurca*, *Scopelophila cataractae*, *Sphaerocarpos michelii*, *Sphaerocarpos texanus*, *Weissia brachycarpa*, *Weissia controversa*

Bryophytes of damp soil (31 species)

Bryum knowltonii, *Fossombronina incurva*, *Fossombronina wondraczekii*, *Physcomitrella patens*, *Pleuridium acuminatum*, *Pohlia lescuriana*, *Pohlia wahlenbergii*, *Riccia beyrichiana*, *Riccia canaliculata*, *Riccia huebneriana*



Recreational area Moerdijk

Hotspot area: 43 ha

Natura 2000 site: Hollands Diep

Species groups: Mushrooms

Province: Noord-Brabant

Criterion B(i)

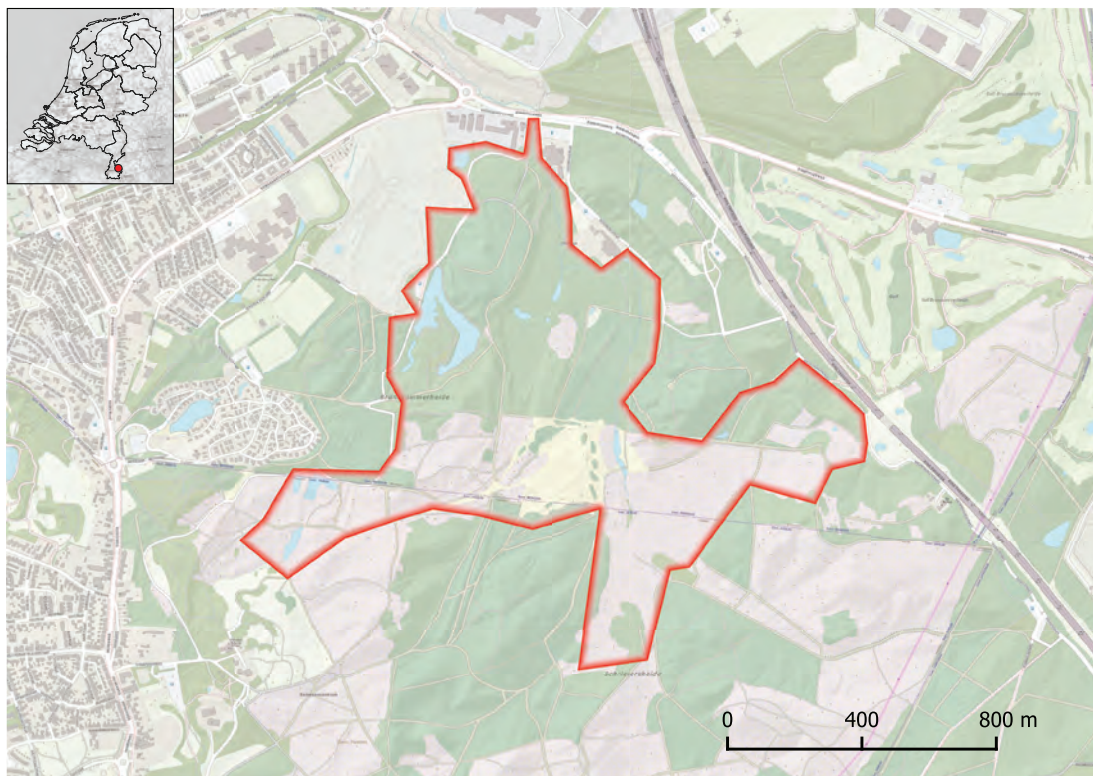
Mushrooms of farmland, parks, cities and roadsides
(112 species)

Agaricus bitorquis, *Calloriella umbrinella*, *Coprinellus marculentus*, *Coprinellus velatopruinatus*, *Coprinopsis cortinata*, *Hydropisphaera arenula*, *Lepiota cristata*, *Psathyrella canoceph*, *Psathyrella narcotica*, *Pyrenopeziza urticicola*

References

Chrispijn, R. (1995) De NMV excursies van 1994. *Coolia* 38: 73-80.

Vries, B.W.L. de (1998) Uit de regio met mededelingen van districtcoördinatoren en verslagen van NMV-excursies. *Coolia* 41: 127-142.



Brunsummerheide

Hotspot area: 110 ha

Natura 2000 site: Brunsummerheide

Species groups: Bryophytes

Province: Limburg

Criterion B(ii)

Red Listed bryophytes (26 species)

Riccardia multifida, *Sphagnum affine*, *Sphagnum capillifolium*, *Sphagnum flexuosum*, *Sphagnum molle*, *Sphagnum rubellum*, *Sphagnum teres*, *Thuidium abietinum*, *Tritomaria exsectiformis*, *Warnstorfia exanulata*

References

Dijk, G. van, F. Smolders, C. Fritz, A. Grootjans, N. Straathof & G. van Duinen (2012) Ecologische gradiënten op de helling in de Brunsummerheide. *De Levende Natuur* 113: 174-179.

Op den Kamp, L. (2009) De veenmossen van de Brunsummerheide. *Natuurhistorisch Maandblad* 98: 272-277.



Bunderbos

Hotspot area: 412 ha

Natura 2000 sites: Bunder- en Elslooërbos, Grensmaas

Species groups: Plants, Mushrooms

Province: Limburg

Criterion B(i)

Ancient forests understory plants (26 species)

Adoxa moschatellina, *Chrysosplenium alternifolium*, *Lysimachia nemorum*, *Milium effusum*, *Paris quadrifolia*, *Phyteuma spicatum* subsp. *nigrum*, *Primula elatior*, *Sanicula europaea*, *Veronica montana*

Mushrooms of swamp woodland (313 species)

Camarophyllopsis atropuncta, *Cortinarius anthracinus*, *Entoloma aprile*, *Peziza subisabellina*, *Pezicula carpinea*, *Pluteus aurantiorugosus*, *Psathyrella leucotephra*, *Simocybe sumptuosa*

Criterion B(ii)

Red Listed macrofungi (274 species)

Cystolepiota pulverulenta, *Geastrum lageniforme*, *Geastrum rufescens*, *Lepiota ochraceofulva*, *Lepiota pseudoasperula*, *Limacella ochraceolutea*, *Pachyella violaceonigra*, *Xerocomus pelletieri*

References

Bollen, J. (2002) Kroonjuwelen en andere mycologische snuisterijen - 5: holle wegen bij het Bunderbos. *Coolia* 45: 198-200.

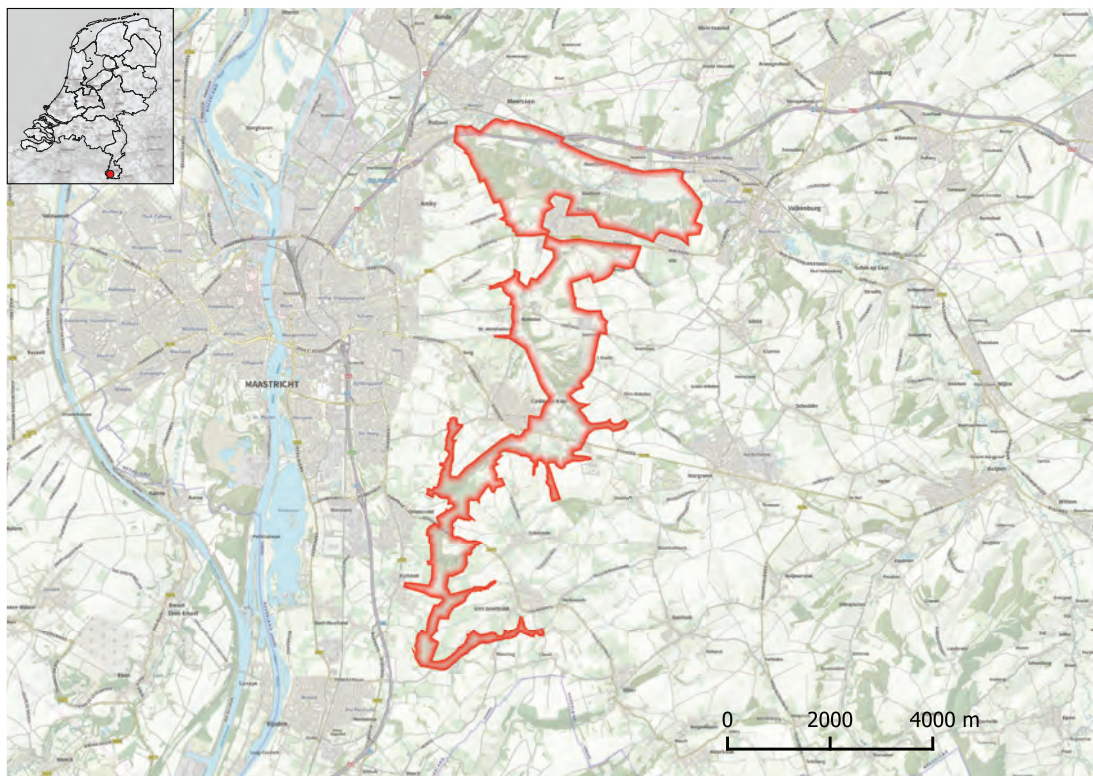
Bollen, J. (2002) Kroonjuwelen en andere mycologische snuisterijen 3. Het zuidelijke gedeelte van het Bunderbos. *Coolia* 45: 5-8.

Bollen, J. (2002) Kroonjuwelen en andere mycologische snuisterijen 4. Het noordelijke gedeelte van het Bunderbos. *Coolia* 45: 95-100.

Chrispijn, R. & A. van der Putte (2010) De binnenlandse werkweek 2009, alles is veel voor wie niet veel verwacht. *Coolia* 53: 25-37.

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.

Putte, A. van der (2011) De excursies in 2010. *Coolia* 54: 167-184.



Geuldal, Bemelerberg, Savelsbos & 't Rooth

Hotspot area: 1588 ha

Natura 2000 sites: Bemelerberg & Schiepersberg, Geuldal, Savelsbos

Criterion B(i)

Ancient forests understory plants (28 species)

Paris quadrifolia, *Phyteuma spicatum* subsp. *nigrum*, *Sanicula europaea*, *Veronica montana*

Vascular plants of dry grasslands (114 species)

Arabis hirsuta subsp. *sagittata*, *Galium pumilum*, *Gentianella germanica*, *Helianthemum nummularium*, *Hieracium lactucella*, *Himantoglossum hircinum*, *Koeleria pyramidata*, *Orchis simia*, *Polygala comosa*, *Teucrium montanum*

Vascular plants of forest margins, scrub and felled areas (108 species)

Bromopsis ramosa subsp. *ramosa*, *Carex divulsa*, *Clinopodium menthifolium*, *Hypericum hirsutum*, *Inula conyzae*, *Lathyrus sylvestris*, *Orchis mascula*, *Vincetoxicum hirundinaria*

Species groups: Plants, Bryophytes, Lichens, Mushrooms

Province: Limburg

Vascular plants of nutrient-rich grasslands (78 species)

Alchemilla xanthochlora, *Campanula patula*, *Carum carvi*, *Cirsium oleraceum*, *Colchicum autumnale*, *Crepis paludosa*, *Crepis vesicaria* subsp. *taraxacifolia*, *Hieracium caespitosum*, *Orobancha minor*, *Rhinanthus alectorolophus*, *Saxifraga granulata*

Vascular plants of forest margins, scrub and felled areas (108 species)

Bromopsis ramosa subsp. *ramosa*, *Carex divulsa*, *Clinopodium menthifolium*, *Hypericum hirsutum*, *Inula conyzae*, *Lathyrus sylvestris*, *Orchis mascula*, *Vincetoxicum hirundinaria*

Bryophytes of bare tilled land (36 species)

Encalypta streptocarpa, *Encalypta vulgaris*, *Eucladium verticillatum*, *Microbryum curvicolle*, *Plagiothecium cavifolium*, *Pseudocrossidium revolutum*

Bryophytes of nutrient rich forests (36 species)

Campylophyllum calcareum, *Conocephalum conicum*, *Mnium marginatum*, *Mnium stellare*, *Oxyrrhynchium pumilum*, *Oxyrrhynchium schleicheri*, *Plagiochila asplenoides*, *Plagiochila porelloides*, *Plagiomnium rostratum*

Hygrocybe grasslands (24 species)

Hygrocybe aurantiosplendens, *Hygrocybe calcephila*, *Hygrocybe colemanniana*, *Hygrocybe glutinipes*, *Hygrocybe intermedia*, *Hygrocybe ingrata*, *Hygrocybe mucronella*, *Hygrocybe punicea*, *Hygrocybe ovina*, *Hygrocybe reidii*

Criterion B(ii)

Red Listed vascular plants (145 species)

Anacamptis morio, *Bromus secalinus*, *Carex digitata*, *Crepis foetida*, *Minuartia hybrida*, *Phegopteris connectilis*, *Scabiosa columbaria*, *Teucrium botrys*

Red Listed bryophytes (43 species)

Acaulon muticum, *Anomodon viticulosus*, *Ctenidium molluscum*, *Entosthodon fascicularis*, *Jungermannia hyalina*, *Microbryum curvicolle*, *Pleurochaete squarrosa*, *Thuidium abietinum*, *Trichostomum crispulum*

Red Listed lichens (38 species)

Cladonia pocillum, *Clauzadea metzleri*, *Clauzadea monticola*, *Endocarpon pusillum*, *Gyalolechia fulgens*, *Hymenelia prevostii*, *Placidium squamulosum*, *Placynthium nigrum*, *Squamarina cartilaginea*, *Toninia sedifolia*

Criterion B(iii)

Old forests with high native woody plant diversity (64 species)

Cornus mas, *Crataegus × macrocarpa*, *Rosa arvensis*, *Rosa tomentosa*, *Ulmus laevis*

References

Aptroot, A. & C.M. van Herk (1999) Korstmossen in Limburg, voorjaarsweekend 1998. *Buxbaumiella* 49: 14-26.

Bijlsma, R.J., H.G.J.M. Koop & E.J. Weeda (2019) Het eiken-haagbeukenbos in Nederland: een bedreigde en uit beeld geraakt wisselvochtig ecosysteem. *De Levende Natuur* 120: 109-115.

Maes, B. (2006) Inheemse bomen en struiken in Nederlands en Belgisch Limburg. *Natuurhistorisch Maandblad* 95: 161-165.

Maes, N.C.M. & R. van Loon (2013) Rapport Limburg. Inventarisatie autochtone bomen en struiken in de terreinen van Staatsbosbeheer. Staatsbosbeheer.

Nijssen, M.E., M.C. Scherpenisse, P.J.M. Verbeek, H. de Mars, E. van Rijsselt & B. Possen (2015) Mergelgroeves: ontstaan, ontwikkeling en beheer van on-Nederlandse natuur. *De Levende Natuur* 116: 302-308.

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.

Sollman, Ph. & H.J.M. Sipman (1975) De voorjaarsexcursie naar Zuid-Limburg, vrijdag 26 tot dinsdag 30 april 1974. *Buxbaumiella* 5: 4-19.

Staaïj, P., W. Ozinga, M. Pierik & J. Schaminée (2008) Grenzen in beweging. De invloed van recente klimaatverandering op Nederlandse plantengemeenschappen. *Natura* 105: 76-78.

Vellinga, E.C. & Th.W. Kuyper (1985) De excursies in 1984. *Coolia* 28: 57-63.



Forests Gulpdal Slenaken

Hotspot area: 171 ha

Natura 2000 site: Geuldal

Species groups: Plants, Bryophytes

Province: Limburg

Criterion B(i)

Ancient forests understory plants (26 species)

Lysimachia nemorum, *Paris quadrifolia*, *Phyteuma spicatum* subsp. *nigrum*, *Veronica montana*

Bryophytes of nutrient rich forests (27 species)

Anomodon viticulosus, *Brachythecium glareosum*, *Brachythecium populeum*, *Brachythecium rivulare*, *Conocephalum conicum*, *Mnium marginatum*, *Oxyrrhynchium pumilum*, *Oxyrrhynchium schleicheri*, *Plagiomnium rostratum*, *Thamnobryum alopecurum*

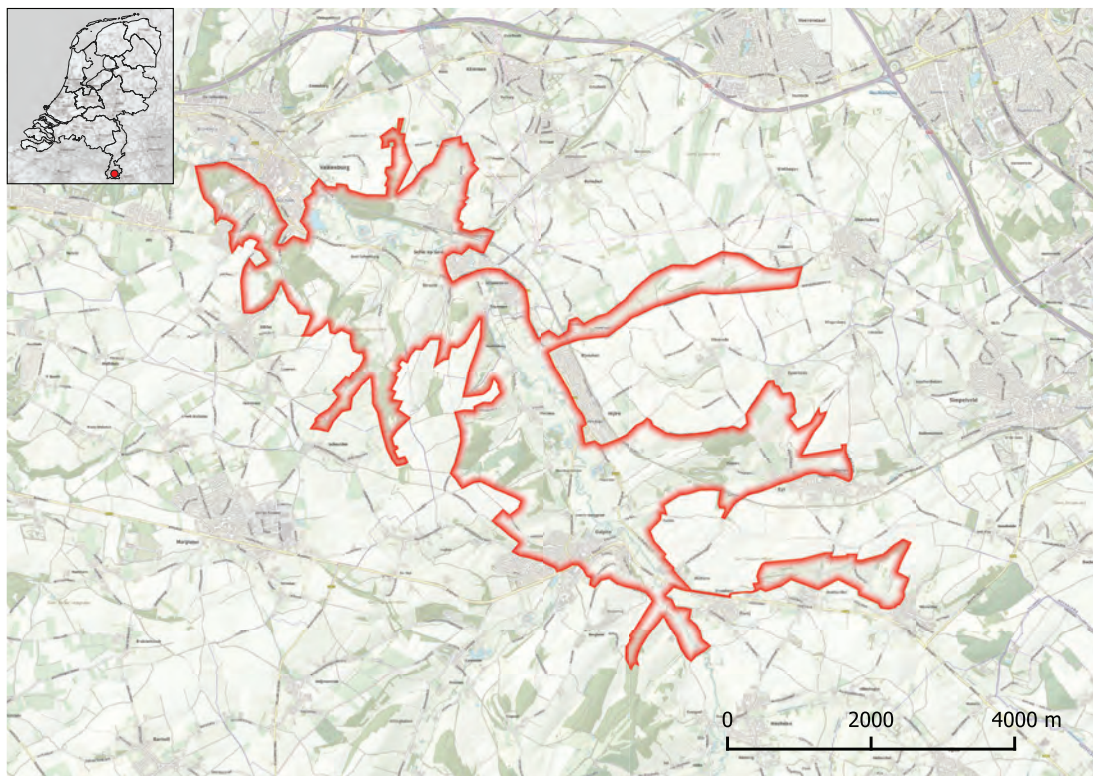
Criterion B(ii)

Red Listed vascular plants (61 species)

Carex caryophylla, *Hieracium lactucella*, *Hieracium murorum*, *Orchis mascula*, *Potentilla sterilis*, *Primula veris*

References

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.



Hillslopes Valkenburg, Wylre, Wahlwiller

Hotspot area: 2081 ha

Natura 2000 site: Geuldal

Species groups: Plants, Mushrooms

Province: Limburg

Criterion B(i)

Vascular plants of forest margins, scrub and felled areas (115 species)

Astragalus glycyphyllos, *Clinopodium vulgare*, *Hypericum hirsutum*, *Inula conyzae*, *Orchis mascula*, *Orchis militaris*, *Orchis purpurea*, *Platanthera montana*, *Senecio nemorensis*, *Viola hirta*

Vascular plants of nutrient-rich grasslands (85 species)

Carum carvi, *Cirsium oleraceum*, *Colchicum autumnale*, *Crepis paludosa*, *Crepis vesicaria* subsp. *taraxacifolia*, *Orobancha minor*, *Rhinanthus alectorolophus*, *Saxifraga granulata*, *Torilis arvensis*, *Tragopogon pratensis* subsp. *orientalis*

Mushrooms of farmland, parks, cities and roadsides (88 species)

Conocybe aurea, *Coprinellus amphithallus*, *Coprinellus ellisii*, *Galerina nana*, *Gaeastrum rufescens*, *Hohen-*

buehelia petaloides, *Phaeolepiota aurea*, *Volvariella bombycina*

Hygrocybe grasslands (22 species)

Hygrocybe calciphila, *Hygrocybe flavipes*, *Hygrocybe nitrata*, *Hygrocybe perplexa*, *Hygrocybe reidii*

Criterion B(ii)

Red Listed macrofungi (196 species)

Amanita submembranacea, *Coprinellus amphithallus*, *Flammulaster speireoides*, *Inocybe erubescens*, *Lactarius azonites*, *Limacella glioderma*, *Lyophyllum boudieri*, *Tricholoma sejunctum*, *Xerocomus peltetii*

Red Listed vascular plants (170 species)

Actaea spicata, *Carex caryophylla*, *Colchicum autumnale*, *Hypericum hirsutum*, *Orchis militaris*, *Orchis purpurea*, *Potentilla sterilis*, *Primula veris*, *Sanicula europaea*, *Scabiosa columbaria*

Criterion B(iii)

Arable weeds (51 species)

Aphanes arvensis, *Bunium bulbocastanum*, *Kickxia elatine*, *Lathyrus aphaca*, *Legousia speculum-veneris*, *Lithospermum arvense*, *Rhinanthus alectorolophus*, *Scandix pecten-veneris*, *Thlaspi perfoliatum*, *Valeriana dentata*

Old forests with high native woody plant diversity (77 species)

Cornus mas, *Crataegus x macrocarpa*, *Daphne mezereum*, *Lonicera xylosteum*, *Quercus x rosacea*, *Rosa arvensis*, *Rosa balsamica*, *Rosa micrantha*, *Rosa tomentosa*, *Rubus bellardii*

References

- Eichhorn, K.A.O. (2013) Ecologie en beheer van kruidenrijke akkers op de zware en basische grondsoorten. Eichhorn Ecologie & Natuurmonumenten.
- Gutter, A. (2003) Paddestoelenzoeken door de seizoenen heen. *Coolia* 46: 122-133.
- Haveman, R. (1997) Akkerreservaten in Nederland. Botanische kwaliteit en beheer. IKC Natuurbeheer.
- Hommel, P.W.F.M., R.J. Bijlsma, K.A.O. Eichhorn, J. den Ouden, R.W. de Waal, M.F. Wallis de Vries, L. Eichhorn, L. Goudzwaard, T. Heijerman, R.H. Kemmers, M.J.M. Prick & F. Smeets (2016) Mogelijkheden voor herstelbeheer in hellingbossen op kalkrijke bodem in Zuid-Limburg: resultaten praktijkproeven: omvorming van voormalig middenbos naar gevarieerd opgaand bos. Vereniging van Bos- en Natuurterreinen.
- Maes, B. (2006) Inheemse bomen en struiken in Nederlands en Belgisch Limburg. *Natuurhistorisch Maandblad* 95: 161-165.
- Maes, N.C.M. & R. van Loon (2013) Rapport Limburg. Inventarisatie autochtone bomen en struiken in de terreinen van Staatsbosbeheer. Staatsbosbeheer.
- Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.
- Vries, B.W.L. de (1996) Verslag van de N.M.V.-excursies in het jaar 1995. *Coolia* 39: 58-69.



Kunderberg & Imstenraderbos

Hotspot area: 499 ha

Natura 2000 sites: Geleenbeekdal, Kunderberg

Species groups: Plants

Province: Limburg

Criterion B(i)

Vascular plants of forest margins, scrub and felled areas (94 species)

Allium oleraceum, Anthericum liliago, Clinopodium vulgare, Inula conyzae, Orchis mascula, Orchis militaris, Platanthera montana, Rosa agrestis, Senecio nemorensis, Viola hirta

References

Kroon, H. de (2016) Uitgezocht: Planten aan de wandel. Planten 3: 18-19.

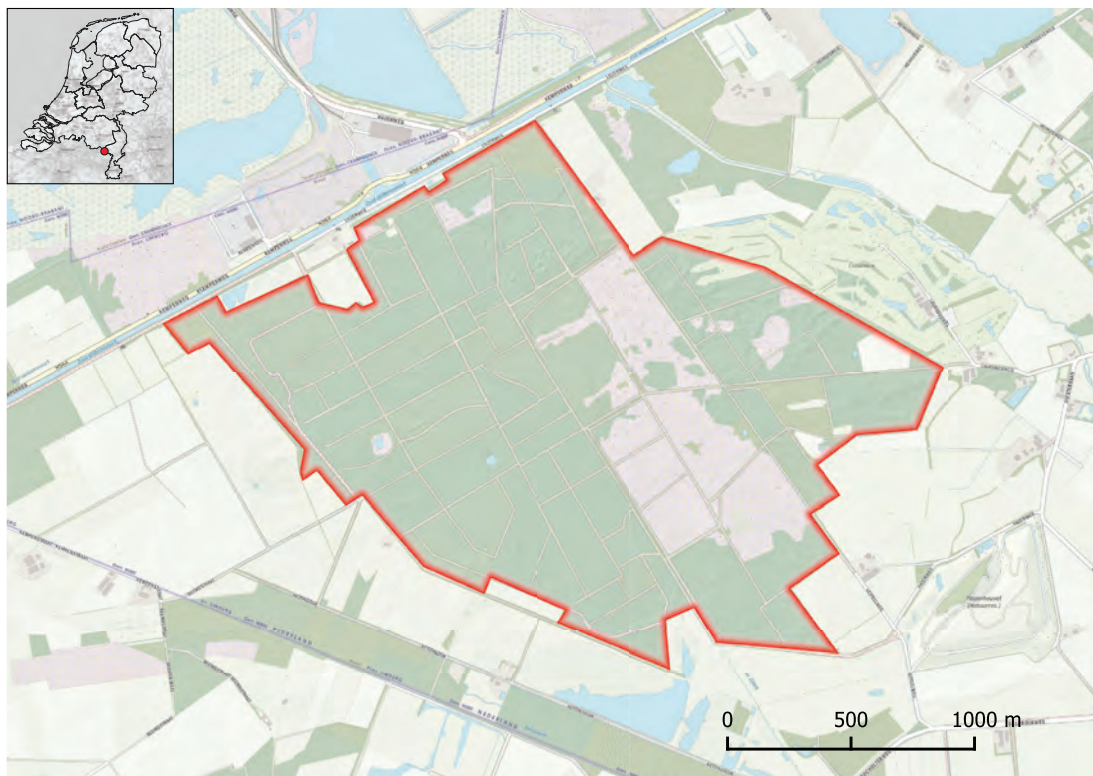
Maes, B. (2006) Inheemse bomen en struiken in Nederlands en Belgisch Limburg. *Natuurhistorisch Maandblad* 95: 161-165.

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.

Criterion B(ii)

Red Listed vascular plants (106 species)

Actaea spicata, *Carex caryophylla*, *Cirsium acaule*,
Galium pumilum, *Gymnadenia conopsea*, *Mentha*
suaveolens, *Orobancha minor*, *Salvia pratensis*, *Sani-*
cula europaea, *Scabiosa columbaria*



Laurabossen & Kruispeel

Hotspot area: 358 ha

Natura 2000 site: Weerter- en Budelerbergen & Ringselven

Species groups: Bryophytes

Province: Limburg

Criterion B(i)

Bryophytes of nutrient poor forests (39 species)

Brachythecium oedipodium, Bryum bornholmense, Calypogeia arguta, Calypogeia azurea, Calypogeia integristipula, Diplophyllum albicans, Nowellia curvifolia, Plagiothecium latebricola, Ptilium crista-castrensis, Scapania nemorea



Pool banks De Krang Swartbroek

Hotspot area: 25 ha

Species groups: Bryophytes

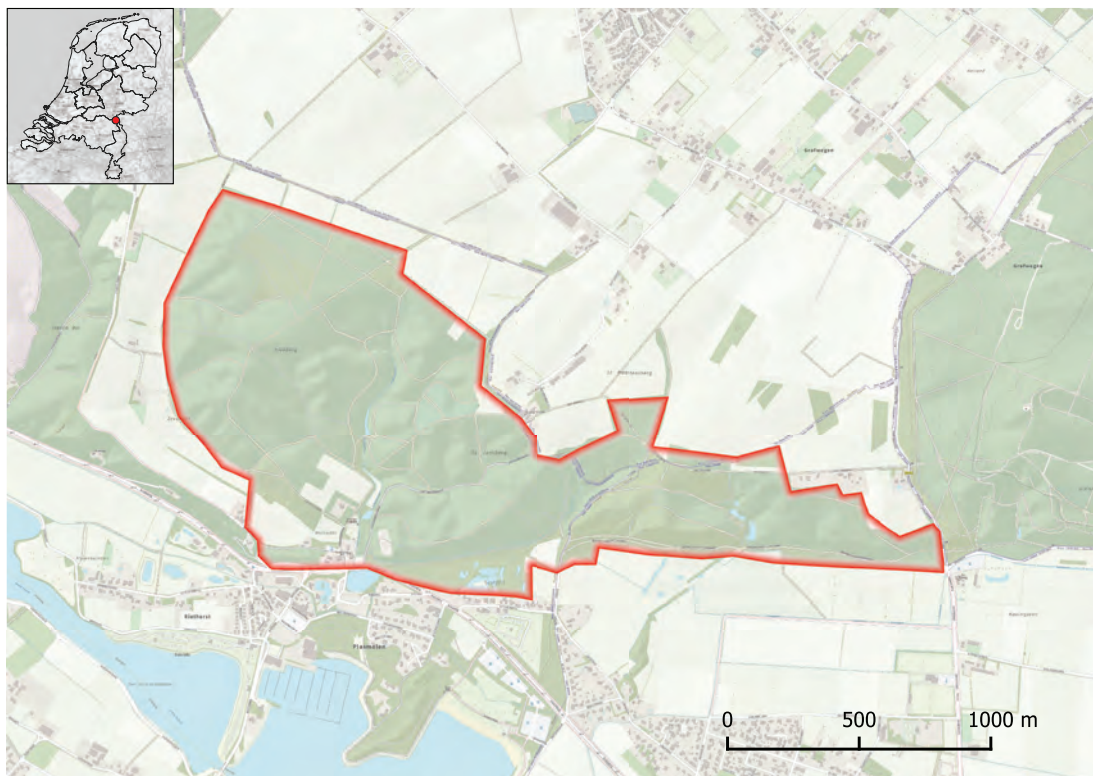
Natura 2000 site: -

Province: Limburg

Criterion B(i)

Bryophytes of damp soil (20 species)

Archidium alternifolium, *Blasia pusilla*, *Bryum klinggraeffii*, *Fossombronina incurva*, *Fossombronina wondraczekii*, *Pohlia bulbifera*, *Pohlia camptotrachela*, *Riccia beyrichiana*, *Riccia canaliculata*, *Riccia huebneriana*



Sint-Jansberg

Hotspot area: 208 ha

Natura 2000 site: Sint Jansberg

Species groups: Plants

Province: Limburg

Criterion B(iii)

Old forests with high native woody plant diversity
(57 species)

Berberis vulgaris, *Corylus avellana*, *Crataegus laevigata*, *Lonicera xylosteum*, *Mespilus germanica*, *Quercus robur*, *Quercus x rosacea*, *Rubus nessensis*, *Sorbus aucuparia*, *Tilia cordata*

References

Bijlsma, R.J., H.G.J.M. Koop & E.J. Weeda (2019) Het eiken-haagbeukenbos in Nederland: een bedreigde en uit beeld geraakt wisselvochtig ecosysteem. *De Levende Natuur* 120: 109-115.

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.



Sint-Pietersberg, Jekerdal & Maastricht

Hotspot area: 805 ha

Natura 2000 site: Sint Pietersberg & Jekerdal

Species groups: Plants, Bryophytes

Province: Limburg

Criterion B(i)

Pioneer bryophytes on calcareous rock (15 species)

Eucladium verticillatum, *Fissidens gracilifolius*, *Grimmia pulvinata*, *Gyroweisia tenuis*, *Leptobarbula berica*, *Rhynchostegiella tenella*, *Rhynchostegium confertum*, *Schistidium crassipilum*, *Tortula marginata*, *Tortula muralis*

Vascular plants of dry grasslands (113 species)

Anacamptis pyramidalis, *Arabis hirsuta* subsp. *sagittata*, *Bupleurum falcatum*, *Carlina vulgaris*, *Koeleria pyramidata*, *Orobancha picridis*, *Scabiosa columbaria*, *Tetragonolobus maritimus*, *Vicia lutea*

Vascular plants of forest margins, scrub and felled areas (106 species)

Atropa bella-donna, *Clinopodium menthifolium*, *Orchis anthropophora*, *Orchis mascula*, *Orchis militaris*, *Orchis purpurea*, *Platanthera montana*, *Stachys alpina*, *Vincetoxicum hirundinaria*

Vascular plants of nutrient-rich grasslands (76 species)

Barbarea intermedia, *Briza media*, *Bromus racemosus*, *Geranium pratense*, *Knautia arvensis*, *Lathyrus tuberosus*, *Persicaria bistorta*, *Pimpinella major*, *Torilis arvensis*

Bryophytes of bare tilled land (37 species)

Acaulon muticum, *Aloina aloides*, *Bryum violaceum*, *Entosthodon fascicularis*, *Ephemerum serratum*, *Fissidens viridulus*, *Pseudocrossidium revolutum*, *Weissia brachycarpa*, *Weissia controversa*, *Weissia longifolia*

Criterion B(ii)

Red Listed vascular plants (127 species)

Allium oleraceum, *Carex digitata*, *Chenopodium bonus-henricus*, *Consolida regalis*, *Cystopteris fragilis*, *Epipactis atrorubens*, *Fragaria moschata*, *Helictotrichon pratense*, *Kickxia spuria*, *Marrubium vulgare*,

Potentilla tabernaemontani, Saxifraga granulata, Valerianella dentata

Criterion B(iii)

Arable weeds (35 species)

Agrostemma githago, Anthemis arvensis, Consolida regalis, Euphorbia exigua, Lathyrus aphaca, Lathyrus tuberosus, Minuartia hybrida, Misopates orontium, Sherardia arvensis, Stachys arvensis, Torilis arvensis, Valerianella dentata

Chasmophytic plants (19 species)

Asplenium adiantum-nigrum, Asplenium trichomanes, Arabis hirsuta subsp. sagittata, Catapodium rigidum, Cystopteris fragilis, Erysimum cheiri, Hieracium murorum, Parietaria judaica, Pseudofumaria alba

References

Denters, T. (2004) Stadsplanten. Fontaine Uitgevers.

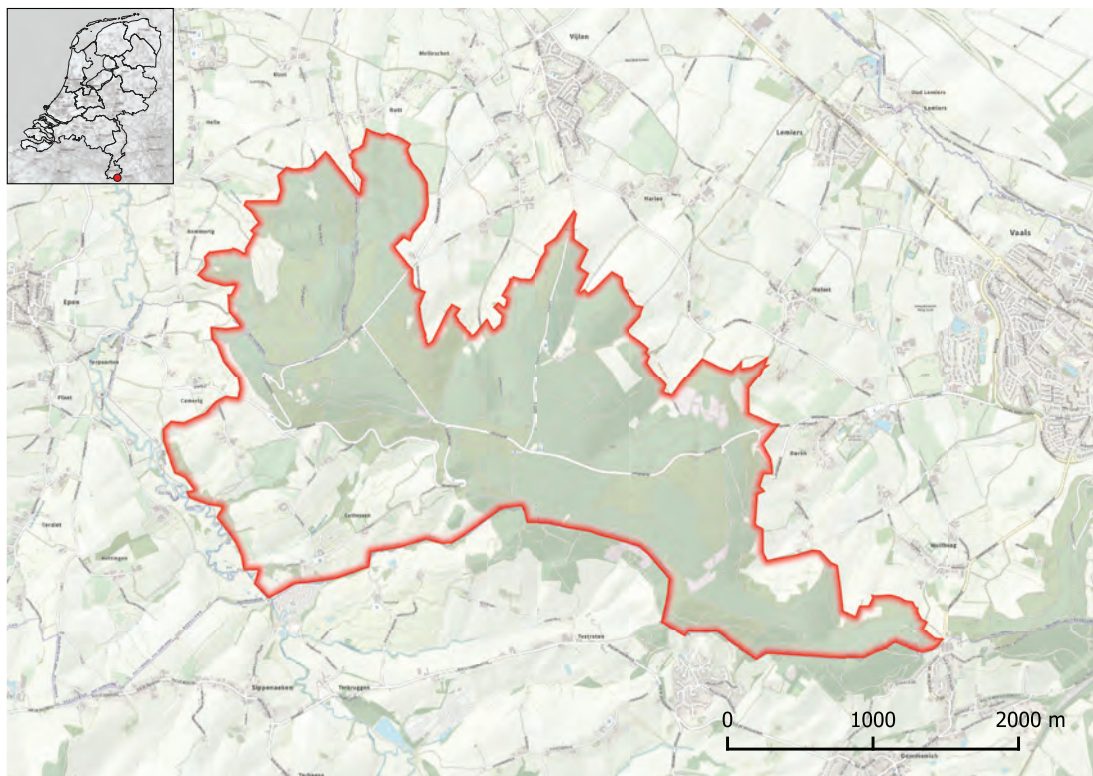
Eichhorn, K.A.O. (2013) Ecologie en beheer van kruidenrijke akkers op de zware en basische grondsoorten. Eichhorn Ecologie & Natuurmonumenten.

Haveman, R. (1997) Akkerreservaten in Nederland. Botanische kwaliteit en beheer. IKC Natuurbeheer.

Maes, B. & P. Bakker (2002) Evaluatie Beschermingsplan Muurplanten. Muurplantenbeleid in de periode 1988-2000. Ministerie van LNV.

Nieuwkoop, J. (1996) Reboulia hemisphaerica L. Raddi terug in Nederland. Met opmerkingen over de mosflora van De Hoge Fronten. Buxbaumiella 40: 37-40.

Siebel, H. & B. Odé (1988) De bryologische voorjaarsexcursie 1987 naar Zuid-Limburg. Buxbaumiella 21: 4-19.



Vijlenerbos

Hotspot area: 841 ha

Natura 2000 site: Geuldal

Species groups: Plants, Bryophytes

Province: Limburg

Criterion B(i)

Ancient forests understory plants (26 species)

Adoxa moschatellina, *Chrysosplenium alternifolium*, *Gagea lutea*, *Lysimachia nemorum*, *Milium effusum*, *Paris quadrifolia*, *Sanicula europaea*, *Veronica montana*

Bryophytes of nutrient poor forests (43 species)

Bryum bornholmense, *Dicranodontium denudatum*, *Dicranum flagellare*, *Dicranum fuscescens*, *Dicranum majus*, *Ditrichum pallidum*, *Nowellia curvifolia*, *Plagiothecium cavifolium*, *Pohlia lutescens*, *Ptilium crista-castrensis*

References

Bijlsma, R.J., H.G.J.M. Koop & E.J. Weeda (2019) Het eiken-haagbeukenbos in Nederland: een bedreigde en uit beeld geraakt wisselvochtig ecosysteem. *De Levende Natuur* 120: 109-115.

Ouden, J.B. den (1995) A-locatie bossen in Limburg. IBN-rapport 136.

Index

Groningen

Bellingwolde cemetery.....	11
Dyke Eemshaven-Delfzijl.....	12
Pastoriehof Warffum.....	13
Ruiten-Aa	14

Friesland

Aekingerzand.....	15
Alde Faenen.....	16
Burgumer Mar	17
Church and cemetery of Wijckel.....	18
Dunes of West-Terschelling	19
Hege Bult - De Mieden	20
Martenastate.....	21
Rotstergaasterwallen	22
Philippusfenne	23
Schiermonnikoog.....	24
Wayside trees Beetsterzwaag.....	25

Drenthe

Asserbos.....	26
Bargerveen.....	27
Boekweitemveentje, Gieten	28
Wayside trees Vledder	29
Drents-Friese Wold, Berkenheuvel & Dieverveld	30
Dwingelderveld.....	31
Gasterse Duinen	32
Holtingerzand & Kleine startbaan	33
Hunebedden Bronneger (dolmen).....	34
Hunebedden Drouwen (dolmen).....	35
Hunebed D5 Zeijen (dolmen)	36
Hunebed D14 Eexterhalte (dolmen).....	37
Hunebed D15 Loon (dolmen)	38
Hunebed D31 Valthe (dolmen)	39
Hunebed D49 Papeloze Kerk (dolmen)	40
Kamperzand.....	41
Mantingerzand.....	42
Natuurgebied Schepping, Beilen	43
Takkenhoogte & Meeuwenveen	44
Wayside trees Sleen	45

Overijssel

Bergvennen & Brecklenkampse Veld.....	46
---------------------------------------	----

Buurserzand	47
Cemeteries Bergklooster & Kranenburg.....	48
Haaksbergerveen	49
Junner Koeland & Arriër Koeland.....	50
Lemselermaten.....	51
Lonnekerberg.....	52
National Park Weerribben-Wieden	53
Witte Veen	55

Gelderland

Beekbergerwoud.....	56
Bergherbosch	57
Cemetery and church Hoog-Keppel.....	58
Cemetery Ereveld Loenen	59
Cemetery Soerenseweg, Apeldoorn.....	60
Cortenoever	61
Dams & dykes Nederrijn	62
De Zoom & Doornspijkse Heide.....	63
Dyke Arkemheen-Putten	64
Ewijkse plaat.....	65
Flipsbos.....	66
Goilberdinger- & Everdingerwaard	67
Hackfortsche bossen	68
Highway gutters A50.....	69
Inland dunes De Hoge Veluwe	70
Korenburgerveen, Vragenderveen & Meddose Veen.....	71
Laag Keppel.....	72
Landgoed Waardenburg & Neerijnen.....	73
Leemputten Staverden	74
Mosterdveen.....	75
Nijmegen, Staddijk.....	76
Ooijpolder, Gendtsche polder & Millingerwaard	77
Palace park Het Loo	78
Rijntakken	79
Staverden Estate.....	80
Stelkampsveld	81
Veluwezoom	82
Willinks Weust.....	83
Wisselse Veen & Tongerense Heide	84
Wodanseiken.....	85
Wooldse Veen.....	86

Flevoland

Horsterwold	87
Ramspol dam	88
Roggebotzand	89

Utrecht

Amelisweerd & Fort Rijnauwen	90
Gunterstein Estate	91
Laarsenberg	92
Landgoed Oostbroek.....	93
Nijenrode Estate	94
Oostelijke vechtplassen.....	96
Slot Zeist, Blikkenburgerlaan, Wulperhorst.....	97
Slot Zuylen.....	98
Soesterberg airport & inland dunes Soest.....	99
Utrecht city center and industrial areas.....	100

Noord-Holland

Amsterdam city center.....	101
Dunes of Bakkum.....	102
Dunes of Texel: Mok, Hors, Westerduinen	103
Dunes of Texel: Slufter	104
Dyke of Schellinkhout	105
Ilperveld.....	106
Kortenhoefse Plassen, Het Hol & Vuntus	107
Muiderberg: church, Jewish cemetery & dyke..	108
Schoorlse Duinen & Bergerbosch	109
Zwanenwater & Pettemerduinen.....	111
Zuid-Kennemerland	112

Zuid-Holland

Berkheide & Meijndel	114
Bieslandse Bos.....	115
Biesbosch & Nieuwe Hollandse Waterlinie.....	117
Coepelduinen.....	118
Den Haag city center.....	119
Dunes Goeree & Kwade Hoek	120
Dunes Noordwijkerhout & De Zilk	121
Dunes of Oostvoorne.....	122
Nieuwkoopse Plassen & De Haeck	123
Oevers Sophiapolder.....	124
Rocky shores Oude Maas	125
Solleveld.....	126
Westduinen Ouddorp	127

Zeeland

Het Zwin	128
Kop van Schouwen	129
Veere, Grote Kerk church and churchyard.....	130
Verdronken Zwarte Polder.....	131
Vroongronden Schouwen.....	132

Noord-Brabant

Coovelsbos	133
Binnenpolder Terheijden.....	134
De Blaak & Kaaistoep	135
De Brand: Tiend	136
De Stippelberg.....	137
Forests Astense Aa.....	138
Forests of Someren-Eind	139
Goudberg.....	140
Langstraat	141
Leemputten Dorst.....	142
Pools nature development Dal van de Reusel...	143
Pools rural area Kampina & Groene Woud	144
Recreational area Moerdijk	145

Limburg

Brunssummerheide.....	146
Bunderbos	147
Geuldal, Bemelerberg, Savelsbos & 't Rooth.....	148
Forests Gulpdal Slenaken	150
Hillslopes Valkenburg, Wylre, Wahlwiller	151
Kunderberg & Imstenraderbos.....	153
Laurabossen & Kruispeel	154
Pool banks De Krang Swartbroek	155
Sint-Jansberg	156
Sint-Pietersberg, Jekerdal & Maastricht	157
Vijlenerbos	159

References

- Aptroot, A., C.M. van Herk & L.B. Sparrius (2011). Basisrapport voor de Rode Lijst Korstmossen. BLWG-rapport 12: 1-108. [Red List and checklist of lichens in the Netherlands]
- Arnolds, E. J. M. & A. van den Berg (2013). Beknopte standaardlijst van Nederlandse paddenstoelen 2013. Nederlandse Mycologische Vereniging. [Checklist of fungi in the Netherlands]
- Arnolds, E. & E. van der Maarel (1979). De oecologische groepen in de Standaardlijst van de Nederlandse flora 1975. *Gorteria* 9: 303-312. [Checklist of vascular plants in the Netherlands]
- Arnolds, E. & M. Veerkamp (2008). Basisrapport Rode Lijst Paddenstoelen. Nederlandse Mycologische Vereniging. Utrecht. [Red List of macrofungi in the Netherlands]
- Bakker, P. & A. van der Berg (2000). Beschermingsplan Akkerplanten. Ministerie van Landbouw, Natuurbeheer en Visserij, Den Haag.
- Bakker, P. & E. Boeve (1985). Stinzenplanten. Zutphen, Terra.
- Bremer, P. (2018). Eeuwenoud bos in Overijssel. Retrieved from http://www.overijssel.nl/publish/pages/167516/achtergrondrapport_bij_eeuwenoud_bos_in_overijssel.pdf.
- Convention on Biological Diversity (2011) Global Strategy for Plant Conservation 2011-2020. Available from: <https://www.cbd.int/gspc/>
- Darbyshire, I., S. Anderson, A. Asatryan, A. Byfield, M. Cheek, C. Clubbe, ... & S. Magassouba (2017). Important plant areas: Revised selection criteria for a global approach to plant conservation. *Biodiversity and Conservation* 26: 1767-1800.
- van der Hak, D.D. (2018). HotspotStatus (Version 0.4.1) [Source code]. <https://github.com/Desharin/Netherlands-Biodiversity-Hotspots>.
- van Herk, C.M., Aptroot, A. & Sparrius, L.B. (2018). Veldgids Korstmossen. Zeist: KNNV Uitgeverij.
- Maes, B. (2006). Inheemse bomen en struiken in Nederland en Vlaanderen. Amsterdam, Boom.
- Siebel, H.N. (1993). Indicatiegetallen van blad- en levermossen. IBN-rapport, 047. Instituut voor Bos- en Natuuronderzoek, Wageningen.
- Siebel, H.N., R.J. Bijlsma & L.B. Sparrius (2013). Basisrapport voor de Rode Lijst Mossen 2012. BLWG-rapport 14. [Red List and checklist of bryophytes in the Netherlands]
- Sparrius, L.B., J. Loermans & T. van de Vondervoort (2015). Protocol voor het inventariseren van muurplanten. FLORON-rapport 59: 1-17.
- Sparrius, L.B., B. Odé & R. Beringen (2014). Basisrapport Rode Lijst Vaatplanten 2012 volgens Nederlandse en IUCN-criteria. FLORON-rapport 57: 1-179. [Red List of vascular plants in the Netherlands]