Bibliography, NETHERLANDS — Mirjam Broekmeyer, Ad van Hees

General information about the programme

Broekmeyer M.E.A., Hilgen P. (1992): Basic report on forest reserves (Basisrapport Bosreservaten) Rapport 1991-03, Directie Bos- en Landschapsbouw, Utrecht. 64 pp.
Abstract: This report gives information on: background, aims and organisation of the research programme, selection procedure and designation of the reserves, procedures concerning the establishment and management of the reserves, background of the theoretical scope of the research methodologies and the onset of the research.
Key-words: Selection, methodology

Broekmeyer M.E.A., Szabo P. (1993): The Dutch forest reserves programme
In: Broekmeyer M.E.A., Vos W., Koop H. (eds.): Proceedings of the Forest Reserves Workshop. PUDOC-DLO, Wageningen, 75-87.
Abstract: Motives and purpose of Dutch forest reserves, aims and definitions of the forest reserves, selection and management. Also intention and layout of the research programme.
Key-words: Research objectives, selection, methodology

Stuurman F., Clement J. (1993): The standardised monitoring programme for forest reserves in The Netherlands
In: Broekmeyer M.E.A., Vos W., Koop H. (eds.): Proceedings of the Forest Reserves Workshop. PUDOC-DLO, Wageningen, 99-109
Abstract: Information on the layout of the forest reserves and the monitoring methods, especially the recording of the forest structure in the sample plots and the core-area. Also about standardisation of the data-collection.
Key-words: Research programme, data-collection

Vegetation

Various authors (1995): The vegetation of forest reserves in the Netherlands (De vegetatie van bosreservaten in Nederland)
Instituut voor Bos- en Natuuronderzoek-DLO, Wageningen
Abstract: 10 reports describing the vegetation of core area and entire reserves of 10 forest reserves. Classification of local vegetation types, related to the potential natural vegetation. Data are presented by tables, graphs, maps and photographs.
Key-words: Vegetation types

Forest structure forest reserve

Various authors (1993-1999): Forest structure and forest composition of forest reserves in the Netherlands (Bosstructuur en bossamenstelling van bosreservaten in Nederland)
Instituut voor Bos- en Natuuronderzoek-DLO, Wageningen
Abstract: 13 reports describing the forest structure and forest composition of the entire forest reserve based on ground-data collected in the sample plots and aerial photographs. Including different tables of tree characteristics and maps of forest structure classifications.
Key-words: Tree species composition, basal area, vegetation

Forest structure of the core area

Koop H.G.J.M., Boddez P. (1991): Survey of forest reserves: forest structure of the core area (Inventarisaties van bosreservaten: bosstructuur kernvlakte)
Abstract: 12 reports describing the forest structure of the core area, including the dead wood component.
Key-words: Tree species composition

Soil research

Kemmers, R., van Delft S.P.J., Mekkink P. (1993): Soil survey and humus form research in Dutch forest reserves
In: Broekmeyer M.E.A., Vos W., Koop, H (eds.) (1993): Proceedings of the Forest Reserves Workshop. PUDOC-DLO, Wageningen, 119-127
Abstract: Results of the soil research of a representative set of 14 forest reserves. Description of the method of collecting and statistically analysing of the data. Presentation of the regression model resulting from the analysis and illustration of some of its aspects. Discussion of the results. Subject of the study was to examine if the distinct humus layers can be predicted from the parent material, drainage state and vegetation.
Key-words: Methodology, humus forms

Sevink J., Kemmers R., Emmer I. (1993): Soil research in Dutch forest reserves: the implications of spatial and temporal soil variability
In: Broekmeyer M.E.A., Vos W., Koop H. (eds.) (1993): Proceedings of the Forest Reserves Workshop. PUDOC-DLO, Wageningen, 109-119
Abstract: A paper, which examines the methodology, proposed for the soil research on successional changes. Brief outline of the research done so far and of the problems encountered. Illustrated by studies on changes in soil properties en spatial variability of other study objects.
Key-words: Soil research, methodology

Various authors (1988-1999): Soil survey and humus form research of forest reserves (De bodemgesteldheid van bosreservaten in Nederland)
Staring Centrum - DLO, Wageningen
Abstract: 42 reports of 42 Dutch forest reserves that describe the soil condition of the entire forest reserve. Data of soil profile on parent material, drainage state, soil characteristics per horizon and thickness of distinct horizons are analysed and described. Maps of the soil classification and drainage state are included.
Key-words: Soil survey, ground water table

Various authors (1998-1999): Humus research in forest reserves (Humusprofielen in de bosreservaten)
Staring Centrum – DLO, Wageningen
Abstract: 2 reports on 4 Dutch forest reserves which describes the spatial variability in ecto-organic humus profiles within the core area of the forest reserves under study. Descriptions of the humus profiles focus on thickness of the different humus horizons, nutrient content and nutrient stock and acidity (pH).
Key-words: Humus, spatial variability, nutrient stocks

Mycoflora research

Veerkamp M. T. (1992): Mycoflora of forest reserves (Paddestoelen in bosreservaten)
Hinkeloord Reports, no. 4. Department of Forestry, AU Wageningen. 123 pp.
Abstract: Transects in 16 forest reserves have been investigated for macrofungi during three years. All carpophores of the species have been counted in 10m by 10m blocks. The reserves are generally described and lists of the occurrence of species per block are given. An ordination and a classification on the basis of the various ecological groups that have been distinguished indicate the similarity of the forest reserves. The ecological groups of mycorrhizal species are based on the joint occurrence with deciduous and/or coniferous trees, nutrient status of the soil and the thickness of a litter layer. For the ecological groups of litter/humus saprophytes the characteristics of the organic profile, the occurrence on moss and intact leaves, stems and fruits are the most important criteria. The relation between absence of forest management and mycological diversity is discussed.
Key words: Fungi, ecological groups

Veerkamp M.T., Kuyper Th. W. (1993): Mycological research in forest reserves in The Netherlands
In: Broekmeyer M.E.A., Vos W., Koop H. (eds.) (1993): Proceedings of the Forest Reserves Workshop. PUDOC-DLO, Wageningen, 127-145
Abstract: article with main results of the above-mentioned report. Brief information about material and methods, results and discussion and finally conclusions and predictions.
Key-words: Fungi, ecological groups

Forest dynamics

Clerkx A.P.P.M., Broekmeyer M.E.A., Koop H.G.J.M. (1995): Forest dynamics of the Otterskooi - ten years monitoring of an alderbrook forest (Bosdynamiek in de Otterskooi - Tien jaar monitoring van een elzenbroekbos)
IBN-rapport 199. Instituut voor Bos- en Natuuronderzoek, Wageningen, 105 pp.

Clerkx A.P.P.M., Broekmeyer M.E.A., Koop H.G.J.M. (1995): Forest dynamics of the Otterskooi - ten years monitoring of an alderbrook forest (Bosdynamiek in de Otterskooi - Tien jaar monitoring van een elzenbroekbos)
Nederlands Bosbouw Tijdschrift 67 (5),178-184
Abstract: The forest Otterskooi is a brook forest of 200 ha in which a 1 ha core area has been investigated in 1983 and 1993 on the aspects of forest structure and vegetation of the herb layer. The potential natural vegetation consists of *Lysimachio-Quercetum*, *Carici elongatae-Alnetum* and *Pruno-Fraxinetum*

Broekmeyer M.E.A., Clerkx A.P.P.M., Koop H.G.J.M. (1995): Forest dynamics of the Norgerholt - ten year monitoring of a holly-oak forest (Bosdynamiek in Het Norgerholt - Tien jaar monitoring in een Hulst-Eikenbos)
IBN-rapport 210. Instituut voor Bos- en Natuuronderzoek, Wageningen, 112 pp.
Abstract: The forest Norgerholt is part of an old forest-site and is a characteristic Fago-*Quercetum petraeae*. The most important tree species is *Quercus robur* and *Ilex aquifolium* in the shrub-layer. Forest structure and vegetation of the herb-layer have been investigated in a 1 ha core area in 19982 and 1992.

Clerkx A.P.P.M., Broekmeyer M.E.A., Szabo P.J., van Hees A.F.M., van Os L.J., Koop H.G.J.M. (1996): Forest dynamics of the forest reserve Galgenberg (Bosdynamiek in bosreservaat Galgenberg)
IBN-rapport 217. Instituut voor Bos- en Natuuronderzoek, Wageningen, 137 pp.
Abstract: The forest reserve Galgenberg is a 40 ha area of *Fago-Quercetum petraeae*. It is the first national forest reserve which has been monitored after ten years on the aspects of forest structure (based on aerial photographs and ground-investigations) and vegetation of the herb-layer as well in the 1 ha core area as circle plots in the entire reserve. Various forest-types are present: a spontaneous developed birch forest of 100 years with remnants of pedunculate oak, a 100 year old Scots pine forest, spontaneous regeneration areas after the storms of 1972/1973 and second generation pine-forests, age 30-40 years. Forest developments and dynamics are given and analysed, including gap-dynamics, dead wood component.

Clerkx A.P.P.M., Broekmeyer M.E.A. (1997): Forest dynamics of Noordhout - ten years monitoring of a pedunculate oak-beech forest (Bosdynamiek in Noordhout - Tien jaar monitoring van een Wintereiken-Beukenbos)
IBN-rapport 279. Instituut voor Bos- en Natuuronderzoek, Wageningen, 95 pp.
Abstract: In 1982 and 1992 a 1 ha core area has been monitored for the forest structure and the vegetation of the herb-layer. The potential natural vegetation is a *Fago-Quercetum petraeae*. Beech and sessile oak but will replace the dominant Scots pine in the core area. Dynamics of the canopy structure are analysed with a light simulation programme.

Bouwma I.M., Clerkx A.P.P.M., van Hees A.F.M. (1997): Forest dynamics of the Vijlnerbos Bosdynamiek in het Vijlnerbos)
IBN-rapport 327. Instituut voor Bos- en Natuuronderzoek, Wageningen, 37 pp.
Abstract: Vijlnerbos is a forest reserve of 21 ha representative for the Luzulo-Fagetum forests on its Northern limit. The forest has been managed as an oak-birch-beech coppice with standards until 1940 and was designated as a strict reserve in 1983. The reserve has been surveyed in 1983-1986 and in 1996. Succession leads to a decrease of birch and an increase of oak and beech in the tree canopy. The increased canopy closure results in a decrease in coverage of the forest floor vegetation.

Clerkx A.P.P.M., van Hees A.F.M. (1998): Forest dynamics in Tussen de Goren (Bosdynamiek in Tussen de Goren)
IBN-rapport 355. Instituut voor Bos- en Natuuronderzoek, Wageningen, 30 pp.
Abstract: Tussen de Goren is a strict reserve dominated by Scots pine plantations growing on a *Fago-Quercetum molinietosum* site. In the Scots pine stands subcanopy oaks (*Q. robur Q. rubra*) are present. The reserve has been surveyed in 1986-1988 and in 1996. Mortality in common oak was high due to the attack by oak buprestid beetle (*A. biguttatus*). This will delay the development towards a common oak forest. Regeneration of oak, as well as other tree species is absent probably due to the absolute dominance of *Mollinea caerulea* on the forest floor.

Clerkx A.P.P.M., van Hees A.F.M. (1999): Forest dynamics in the Starnumansbos (Bosdynamiek in het Starnumansbos)
IBN-rapport 398. Instituut voor Bos- en Natuuronderzoek, Wageningen, 35 pp.
Abstract: Starnumansbos is a 53 ha strict reserve dominated by oak coppice growing on a Fago-*Quercetum molinietosum* site. In the oak coppice isolated old Scots pine trees are present. The reserve has been surveyed in 1987-1989 and in 1997. Only minor changes in tree species composition could be observed. On the forest floor the abundance of *Dryopteris cartusiana* and *D. dilatata* increased. This might indicate a site improvement associated with the ageing of the forest site.

Special issue of "de levende natuur" (with English summaries)

Broekmeyer M. (1999): Forest reserves: why? (Bosreservaten; waarom?)
De Levende Natuur 100, 150-153

Van Dort K., Bouwma I., Broekmeyer M., Koop H., (1999): Changes in the herbaceous vegetation in the forest reserves (Verandering in de kruidlaag in bosreservaten)
Levende Natuur 100, 154-157

Clerkx S., van Hees A., (1999): Natural regeneration of forests on poor sandy soils (Natuurlijke verjonging in bos op de arme zandgronden)
Levende Natuur 100, 158-162

de Waal R., Winteraeken R. (1999): Humus and natural regeneration of common oak and pedunculate oak (Humus en natuurlijke verjonging van Zomer- en Wintereik)
Levende Natuur 100, 163-167

van Hees A., Clerkx S. (1999): Dead wood in the forest reserves (Dood hout in de bosreservaten)
Levende Natuur 100, 168-172

Veerkamp M. (1999): Mycoflora of the Betulo-Quercetum and Fago-Quercetum forests (De paddestoelenflora van het Berken-Zomereiken- en Winterieken-Beukenbos)
Levende Natuur 100, 173-178