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ON THE ECOLOGY OF PLANT SPECIES AND PLANT COMMUNITIES IN FORMER RIVER BEDS

GENERAL INTRODUCTION

In the years 1954–1957 The Foundation for Biocenological Research (Stichting tot Onderzoek van Levensgemeenschappen, S.O.L.) carried out an extensive study on the vegetation of about 125 former river beds in the Netherlands. They were situated along the great rivers and their branches, viz. Meuse, Oude Maas ("Old Meuse"), Heusdense Maas ("Heusden Meuse"), Rhine, Lek, Merwede, Waal and IJsel. The work was made possible by a grant of the Netherlands Organisation for Pure Research (Nederlandse Organisatie voor Zuiver Wetenschappelijk Onderzoek, Z.W.O.). Dr. M. F. Mörzer Bruijns proposed and supervised the investigation, and Dr. V. Westhoff took part in the interpretation of the results. The field work was carried out by A. J. Quené-Boterenbrood (1954–55), W. A. E. van Donselaar-ten Bokkel Huinink (1955–56), J. van Donselaar (1955–57), Ir. L. G. Kop (1956–57), P. J. Schroevers (1954–55) and E. E. van der Voo (1954–57).

Our study had several aims. The collected material had to contribute to our knowledge of a number of plant species and communities, especially of those playing a part in the hydrosere found in various kinds of water. With respect to the communities it should comprise their floristic composition as well as a definition of their habitat. Moreover, the former river beds should be classified according to their plant communities as well as to their abiotical properties. This classification should be useful as a basis for the choice of future nature-reserves (see Gorter and Westhoff, 1952; Van Donselaar, 1956; Westhoff and Leentvaar, 1957).