

# The Nature of Knowing Vegetation – Analysing discourses in/on ecological science in mid-20<sup>th</sup> century Switzerland

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The history-writing of ecology as a scientific discipline has hitherto emphasised the saturation of knowledge with changing ideas about ecological “nature”. This study rather asks how ecological knowledge comes into being. It does this by focusing on vegetation science in mid-20<sup>th</sup> century Switzerland, which was dominated by the approach of phytosociology designed by botanist Josias Braun-Blanquet. Phytosociology was founded in the first half of the century and possesses high influence in and beyond ecological science.

Based on a theoretical framework inspired by Michel Foucault and Ian Hacking, this study researches the controversially discussed *nature of knowing* in phytosociology. A historical discourse analysis is applied on a series of scientific papers and studies.

It is shown that phytosociology in the tradition of Braun-Blanquet was inherently based on the need to create entities and order in vegetation, for the purpose of inducing causal and generalised statements. It premised on assumptions such as an ecological equilibrium, holism and pristineness. This rationality was fundamentally put into question by vegetation scientist Emil Schmid. Consequently, Schmid rejected phytosociology as a true science and established his own approach of vegetation science.

This epistemological division in vegetation science was not only about a linguistic-conceptual framework to describe vegetation; both sides ontologised different things in vegetation. Moreover, the role of the knowing scientist differed significantly and, facing the complexity in nature, the two sides understood knowledge itself in an opposed way. Above all, the line between scientific knowledge and reality was drawn in a different manner.

In sum, this study finds a heterogeneity and controversy not only in the ecologists’ ideas about nature, but also in their ways of generating scientific knowledge on nature. It is concluded that a historicisation and conceptualisation of any kind of ecological knowledge should incorporate a critical examination of its epistemological principles.

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