196. INTEGRATION OF ECOSYSTEMS DYNAMICS. Bouché M.B., *Zooécologie du sol, I.N.R.A.*, Montpellier, France.

Due to the tremendous variety of studies dealing with ecosystem dynamics, the great number of driving factors, the high diversity of ecosystems and our increasing habit of storing data, improve and communicate knowledge there is a need for an actual integration of data and knowledges. A study has been made using data sets gathered over 25 years by various specialists studying diverse ecosystem compartments and interchanges and dealing with processes applied to interprete these data (to create knowledges) thanks to different statistical analyses (cluster analyses, models, ...) and various computer tools (relational data base, expert-systems, hypertext, artificial intelligence softwares).

Results : in addition of the various contributions of biological, physical, mathematical and computer sciences, a restricted number of ecological concepts plays a key-role in the description of ecosystem variables, the comparison and the systematics of ecological systems. In contrast with the huge lexicon of the today dominant meta-ecology only a restricted number of concepts (with a unique name for each ; circa 100 names-concepts) is necessary to integrate ecosystem dynamics from the tiniest level of description to the ecosphere. The restoration of ecology as an exact science leads to a great improvement of environmental applications mostly thanks to a true falsiability of ecosystem dynamic models. The holistic logic of integrating ecosystem dynamics is shown with **actual examples.**