

FORMS AND REFORMS OF HUMUS

CEA, 07 - 11 July 2003

Why of this meeting ?

In 1992 and 1993 - almost simultaneously - two important projects of humus forms' classification appeared: one in France (*Brethes et al.* - Référentiel Pédologique), coming from a long European tradition of research on humus (*Kubiena, Duchaufour, Babel, Delecour, etc...*); the other in Canada (Colombia Britannica - *Green et al.*), re-examining the first approximation made by *Klinka et al.*

Since then, in Europe, several equipes put to the test these classifications (*Fons et al., ...*), trying - often - to compare these two methods (*Calabrese et al. 1996, ...*).

After ten years, it comes out that none, of these two proposals, gives full satisfaction on European scale, because each of them has been elaborated in a limited climatic context:

- Classification by *Green et al.* considers northern regions and is inadequate for active humus forms (MULLs);
- French classification lacks on the other side, not describing - in a sufficient way - less active humus forms, that are absent at these latitudes but present in northern Europe.

None of these two classifications enables to describe completely how Mediterranean or mountain humus forms work (French classification gives a chance, suggesting Amphimull forms with OH horizons of MODER combined with A horizons, characterised by annelids, of MULL).

For this reason, we thought it was important to gather some European experts, in order to:

- weigh in the balance knowledge and researches under way about humus forms (biological working of them) in different European regions (latitude, longitude, and variable altitude);

- list all issues that need further researches to get an overall understanding of humus working;
- get to an international research level, which would be useful to find further financing;
- suggest, in short, a classification of international value, on European scale, able to become a working group in World Reference Base of soils.

French and Italian équipes, cooperating from some years, specialized in morphological and biological characterizations of humus forms. We are inclined to make multi-purpose and not-hierarchical typologies, based on biological working, in a local context of countryside evolution. Our current researches are based on functional characterization of Amphimulls, mesofauna excrements' diagnosis, first transformation of picea litter by fungus and humus forms dynamics related to the cycle of silviculture.