



APAT

Agenzia per la protezione dell'ambiente e per i servizi tecnici

INTERREG IIIB - ARCHIMED

PRIORITY AXIS 3: INTEGRATED AND SUSTAINABLE MANAGEMENT OF CULTURAL AND NATURAL RESOURCES AND OF LANDSCAPES AND RISK MANAGEMENT"

MEASURE: 3.3 Management, prevention and reduction of natural risks: drought, desertification, fires, earthquakes etc.

FIELD OF INTERVENTION: 353. Protection, improvement and reformation of the natural environment

TITOLO: A.T.M.O.S.net. - Aerobiological Territorial Mediterranean - Oriental Sistic network

The climate in our planet has never been stable but there are sound evidences that it changed significantly over the last 50 years. Therefore these changes have been associated with human being activities. Mean temperature increase is the main investigated feature of "climatic changes". Global mean temperature has increased about 0.6°C over the past 100 years, the largest of any centuries during the past 1000 years. This scenario might have a long-term consequences, such as rising sea level, floods and desertification, but also short-term consequences as changes in the plant biorhythms. Furthermore, in zones with Mediterranean climate, where seasons are clearly differentiated, vegetation synchronises its development with the alternating seasons. The phenology of many herbaceous and arboreal species which grow in this climate is principally ruled by temperature. Every time there are anomalies, such as climate changes, plants respond varying the start and/or duration of flowering season, with variations of quality and quantity of production. Therefore plants, as being under the influence of climatic conditions, variation could be an excellent bio-indicators of these phenomena. In particular, by some of these ones (anemophylous plants), it's possible to monitor the flowering phenological phase by following their pollen emission in the atmosphere.

General purpose

This project is aimed at the implementation of a pollen Mediterranean monitoring network in order to monitor, and as far as possible, to forecast the climatic changes and their effect on the most relevant herbaceous and arboreal species in this area.

This network could be effectively used:

- To monitor and to compare bio-diversity in different area according climate changes
- To monitor phyto - patogen organisms affecting agronomic production in order to assess the most effective pesticides to be used
- To monitor and forecast the distribution of allergenic pollen in order to promote an effective prevention of allergic respiratory effects
- To investigate the distribution of species which can affect and deteriorate monuments and cultural treasures (books, paintings etc)

Each of the issues can be achieved by using proper statistical elaborations, even in order to implement forecasting models, which are based on data collected by the same pollen monitoring network.

This feature give to this project an over advantage due to the fact that each partner could fulfil many different goals

Network set-up

In order to achieve this objective it is necessary to organise either co-ordination or implementation activities

1. Co-ordination activity means

- Agreement and assessment of criteria on standard procedures, devices and professional training
- Identification and characterisation of the network monitoring sites
- Assessment of quality procedures taking also into account of the variability among monitoring centres to be assessed
- Statistical elaboration of data in order to implement forecasting models
- Professional training
- Communication strategies

2. Implementation activity means

- Adaptation of these criteria to different organizative , phenological settings
- Implementation and start up of monitoring devices

In order to achieve these goals it would be advisable to state a pilot study, on the results of which a dissemination phase could be finalised.

In any case an integrated communication activity will be arranged all over Mediterranean area

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