



Project no. 018340

Project acronym: EDIT

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Instrument: Network of Excellence

Thematic Priority: Sub-Priority 1.1.6.3: “Global Change and Ecosystems”

C4.1.3 Report on pilot project on field recording techniques and protocols for ATBI+M completed

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Workshop on ATBI+M field recording techniques and protocols

Tuesday, 12 th	Wednesday, 13 th	Thursday, 14 th	Friday, 15 th	Saturday, 16 th	Sunday, 17 th
	Scientific session 1 <ul style="list-style-type: none"> EDIT presentation ATBI+M databases Data input and management on the web site INPN 	Scientific session 4 <ul style="list-style-type: none"> Sampling methods for marine flora and fauna in coastal areas Litter and soil sampling, incl. MSS 	Scientific session 9 <ul style="list-style-type: none"> Light trapping methods Georeferencing, Global positioning system and geographic references The Oomycetes: isolation, identification and characterization 	Scientific session 13 <ul style="list-style-type: none"> Standardized collection of data & tracking of specimens in large biodiversity inventories Molecular ATBIs (MATBIs) 	Departure
	Scientific session 2 <ul style="list-style-type: none"> Bioacustics Essentials of specimen preservation used in molecular taxonomy Anthos, Management of floristic information in Internet Geographic information in Internet. Geoplatform EDIT 	Scientific session 5 <ul style="list-style-type: none"> Inventory of flying insects with Malaise/flight intercept traps: sampling and sorting protocols and techniques; overview of some study-cases Collecting microhymenoptera with sweeping net: sorting and mounting Collecting, dissecting and rearing insects from plant galls 	Scientific session 10 <ul style="list-style-type: none"> Sampling the epigeal waters Studying groundwater environment 	Scientific session 14 <ul style="list-style-type: none"> Plant collecting in temperate and tropical areas Species and ecological guild composition of corticolous arthropod assemblages on tree bark 	
	Scientific session 3 <ul style="list-style-type: none"> Visits: anechoic chamber, sound library, collections, laboratories 	Scientific session 6 <ul style="list-style-type: none"> Practicals: Malais/flight intercept traps, sweeping net, insects from plant galls 	Scientific session 11 <ul style="list-style-type: none"> Practicals in parallel: Global Positioning System (GPS) in the field, and transformations Practicals of limnology, including protocols of sample collection and characterization of Oomycetes 	Scientific session 15 <ul style="list-style-type: none"> Practicals of brak spraying 	
Welcome drinks	Transfer to Navacerrada & El Ventorrillo	Scientific session 7 <ul style="list-style-type: none"> Practicals of litter and soil sampling, incl. MSS 		Scientific session 16 <ul style="list-style-type: none"> General Workshop Discussion 	
		Scientific session 8 <ul style="list-style-type: none"> Bioacustics practicals 	Scientific session 12 <ul style="list-style-type: none"> Night practicals in parallel: Monitoring the Amphibian World Crisis in Laguna de Peñalara Light trap demonstration 	Farewell special gastronomic dinner	

General Workshop Discussion (scientific session 16. 16th June, 16:45 - 19:00):

Participants on this session:

Marian Ramos (WP4 Leader, Museo Nacional de Ciencias Naturales, Spain) MR
 Christoph Haeuser (WP7 Leader, State Museum of Natural History, Germany) CH
 Miguel A. Alonso-Zarazaga (Museo Nacional de Ciencias Naturales, Spain) MAZ
 Maurice Leponce (Royal Belgian Institute of Natural Sciences, Belgium) ML
 Jurgen Schmidl (University of Erlangen-Nuremberg, Germany) JS
 Marta De Biaggi (Alpi Marittime National Park, Italy) MDB
 Garin Cael (The Royal Museum for Central Africa, Italy) GC
 Johannes Dambach (Alexander Koenig Museum, Germany) JD
 Xavier Eekhout (Museo Nacional de Ciencias Naturales, Spain) XE
 Andras Gubanyi (Hungarian Natural History Museum, Budapest) AG
 Dietger Hausenblas (State Museum of Natural History, Germany) DH
 Giuseppe Mazza (Museum of Natural History, Italy) GM
 Meike Meissner (Alexander Koenig Museum, Germany) MM
 Thomas Nauss (Philipps-University of Marburg, Germany) TN
 Dennis Roedder (Alexander Koenig Museum, Germany) DR
 Francesca Zinetti (Museum of Natural History, Italy) FZ

In the final session of the workshop the remaining participants of the workshop took part in a session of general discussion:

First an evaluation of the workshop was made. It was agreed that the workshop had been very useful. It was suggested that a general summary at the end of each presentation would have been very useful, but unfortunately the presentations were longer than scheduled making this objective very difficult to achieve. Some of the participants wished that the workshop could have gone into more detail regarding databases to include all the information of the collected and recorded specimens. The limited presence of botanists was also regretted.

As a result of the workshop the possibility of producing a manual on techniques and protocols was discussed. The usefulness of such a general manual that could be used in different sites would be very high, although it was also suggested that as there already is much literature on “classical” methodologies maybe it would be interesting to focus only on new techniques and fill gaps. Finally it was decided that all the presentations of the workshop should be compiled and freely distributed among the participants and beyond. Previously it could be necessary to ask the different speakers to edit the presentations so they would have a common structure. Then the participants could be asked to generate a list of relevant bibliography related to the topic presented. After these first tasks of compiling information the preparation of a comprehensible manual could be tackled, maybe with a wiki that could be updated regularly. The preparation of a formal manual will take longer and it is possible that more subsequent meetings could be needed.

Finally the participants discussed on how the activities would be organized in the ATBI+Ms. The previous experience of INBITTA (Inventario de Biodiversidad de Todos los Taxa), a total biodiversity inventory project that was planned in Costa Rica, was explained. In this initiative, specialists on different taxonomic groups were taken to different sampling sites and asked to decide what methods should be applied in each of them. This way at the end of each day a general discussion took place to decide how to deal with each site. This approach can only be accomplished by investing far more resources than those EDIT can offer. As EDIT is a Network of Excellence it is made up of institutions and not individuals and its goal is not to finance research but to promote networking and bringing the community together. In this sense the specific goals of the ATBI+Ms is to give a list of expertise for protected areas and develop a system of making standardised inventories repeated through time to monitor the sites. There is no intention of making specific activities for monitoring. Nevertheless, ATBI+M activities are of great interest within the EDIT network and even though they are very centred around taxonomy it could be of great interest to include other research topics like ecology or climate change. It is mandatory to have a better communication within the EDIT institutions to integrate all taxonomists as well as other researchers who work on other topics that could benefit from the ATBI+Ms. Like in the case of any multidisciplinary project, standards would be needed and this would allow other people (e.g. model makers) to benefit from the data collected, so this would be another reason why having a manual could be of great utility. It is of great importance to define very clearly from the beginning the kind of data that is going to be compiled. As a matter of fact, depending on the data we want, the techniques applied can be different as each technique can have a different goal. Currently WP7 is developing a data recording protocol that will be applied in all ATBI+M sites but unfortunately it could not be presented during the workshop.

Another of the proposals discussed was to organize thematic workshops in the ATBI+Ms. The workshops could follow a modular approach: methods – taxa – environments, but it could also be possible to prepare a cross matrix of methods vs. taxa (marine and terrestrial separately) to identify gaps and detect similarities to prepare common workshops. In the case of workshops on the topic of taxa it would be of interest to consider climate change when selecting a group.

The taxonomic impediment was also mentioned during the discussion. How the ATBI+M could be used to train young taxonomist? Currently WP7 and WP8 are collaborating in the preparation of the Summer School, and it would even be possible to implicate PhD students in EDIT's ATBI+M activities that could focus on monitoring for their theses. In these cases there could be

financial help with the travel expenses within the context of the ATBI. For these expenditures, currently, there are no hot topics that would have preference so everybody would be welcomed to apply, but that is likely to change in the future, as the budget for the ATBI+Ms decrease. This financial bottleneck can even affect the future ATBI sites as it might be necessary to look for external financing and political issues could then come into account.

Minutes of the General Workshop Discussion:

MR:

Topics or activities missed?

MDB:

Need of a manual even though sites are quite different.

Workshop in general useful. Maybe a final summary at the end of each presentation.

MAZ:

Lack of time

MR:

Lack of botanist.

Previous experience in Costa Rica INBITTA had a different structure (full inventory in a single protected area): Specialist on taxonomic groups where taken to different sampling sites and asked to decide what methods should be applied in each of them. The discussion of the end of the day on how to deal with each site.

ML:

ATBI+M projects within EDIT of great interest and very centred around taxonomy. Maybe include other issues: ecology, climate change... Make effort in organizing very well since the beginning.

There is a need to include many taxonomist who right now don't feel too integrated or not integrated at all in EDIT. Better communication to explain the importance of this network of taxonomist.

CH:

Offer something: Go out and collect your group in a certain area. But we need more, for example learn other methods. There is a need to tend towards standardisation. A question for all the participants: You think that a manual in this sense would be useful? What you think is more relevant or could be improved?

MR:

Maybe insist on samples? Have the samples as wide as possible?

MAZ:

Prepare on a document what we have learned in these days and ask everybody to include any thoughts they might have regarding the workshop (things missed, things that could be improved...)

In ATBIs prepare workshops on specific taxa. Review techniques and protocols but centred in a certain taxa. Easier to fill gaps with different specialist in a same group.

CH:

In summary 2 proposals:

1. Internal document
2. Promote specific workshops around a common topic (taxa or methodology)

JS:

Make a modular approach:

Different sets of methods and target taxa (a “sampling and taxa protocol”) for different kinds of habitats/environments, to enable a data standardisation for comparative studies

MAZ:

Have taxonomic impediment in mind. Prepare young people while making the activities.

CH & MDB:

Summer school (WP7 and WP8 collaboration)

GC:

There has been an emphasis on collecting and recording and less in what comes later (data bases). Manual is a good thing but takes time. Start with collecting all presentations and make them available in the web.

CH:

Processing is as important as collecting, but producing a manual can become a cumbersome task. It is necessary to have people going out to the field know what comes next but we need something practical and including data bases would make it a very large thing.

ML:

Manual needed but at this stage maybe it is too early. Monitoring was not considered in depth. Objective of this workshop could be starting point towards preparing an EDIT database. Give very clear and simple guidelines.

CH:

Something like that exists but it has not been treated in depth in this workshop.

MR:

Focus on structure of data bases or on the fields?

ML:

Fields mainly. Create an exchangeable flat file.

AG:

Concentrate on new techniques and fill gaps. Much literature already exists on “classical” methodologies.

DR:

Manual should focus on what data wants to be collected. Data that can be compared to other studies. Collect also quantitative data.

JD:

Understandable manual for people (??)

TN:

Multidisciplinary projects need standards to allow other people (e.g: making models) to make use of the data that are collected during those projects. A manual could be of great use for this. Not

so important the post-processes but include the metadata to make the collecting very useful for people outside of the project.

FZ:

Decide data we want before reviewing all kind of techniques (different techniques have different goals).

CH:

Background: EDIT like any NoE does not support research. It's about networking, bringing the community together.

EDIT is a sum of institutions, not individuals.

Official goal: Give a list of expertise for protected areas.

We definitely need a manual or similar:

First step ask for presentations to be freely distributed among participants and beyond.

To make things more standardised ask participants to generate a list of relevant bibliography related to the topic they have talked about (4-8 weeks).

Second step aim for a comprehensible manual based on their participations. Maybe something like a wiki that could be regularly updated. This is in a longer term, maybe some more meeting necessary.

FZ:

Importance of Monitoring through time. Not just generate a data base.

MR:

Regarding the manual:

Define objective of workshops (certain taxa? Certain technique?)

Make a clear definition of the metadata we will compile.

2 possible approaches: Methodologies (sample maximum amount of localities possible) or Specialists. But bringing different groups of experts to try and test methodologies (e.g: INBITTA) requires much more resources than available in EDIT.

MAZ:

Cross matrix of methods vs groups (marine and terrestrial). Identify gaps and detect similarities to prepare common workshops.

MR:

For the election of taxa consider climate change.

CH:

First collect all presentations (or alternative versions) + list of relevant bibliography in a short time (3-4 weeks).

ML:

Data recording protocols for all ATBI sites?

CH:

In preparation. Ready to share.

MAZ:

Have in mind big differences between tropical areas and temperate areas

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ML:

Monitoring in ATBI+M?

CH:

Repeat measurements. Compare what is present now with what will be present applying the same methods in a few years. No specific activity with the goal of monitoring.

JS:

If each researcher that participates can focus on the monitoring or on indexing is there a possibility to implicate for example a PhD students to make a thesis on monitoring within the context of EDIT'S ATBI+M?

CH:

Financial help with travel expenses, budget

ML:

First come first serve or centred on gaps?

CH:

For the moment first come first served. Later (financial bottleneck) gaps.

FZ:

Other sites?

CH:

Yes. 4 - 6 sites in total in Europe depending on budget. Also political issues come into account. Maybe even external financing can influence.