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## **C8.3.1.7 Report on the Third EDIT Summer School**

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<b>PU</b>	Public	x
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

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## 1. Introduction

### 1.1 Date and Location

The Third EDIT Summer School 2010 ‘Modern Taxonomy and Field Work’ was held from 17/07/2010 – 01/08/2010 on the Portuguese island of Madeira.

The subtropical island of Madeira lies 1000 km from mainland Europe and 500 km off the coast of Africa in the Atlantic Ocean. Discovered by the Portuguese in 1418, the archipelago of Madeira consists of the islands Madeira, Porto Santo and the uninhabited Selvagens and Desertas Islands. Madeira has an area of 741 km<sup>2</sup> and is 57 km long and 22 km wide.

The Madeira Nature Reserve was created in 1982 in order to preserve the rich biodiversity of Madeira, which includes many endemic and endangered species. One of the greatest tourist attractions of Madeira lies in its spectacular landscapes. The archipelago is included in the biogeographic region of Macaronesia and has been recognized by UNESCO as a World Heritage site.

World Heritage Nomination (1999) - The Laurisilva of Madeira consists of approx 15000ha within the 27000ha of the Madeira Nature reserve. It is the largest area of laurel forest surviving and is in very good condition, with around 90% believed to be primary forest. The forest has great ecological value, providing ecological services to the island by protecting the micro-climate and maintaining water supplies by collecting and retaining water. It's biological diversity is exceptional, with 66 endemic vascular plant species, 13 liverwort and 20 moss species listed as rare or threatened on a European scale and several endemic animal species, including a species of pigeon (the Madeiran Long-toed Pigeon, which eats laurel fruits), a lizard species, two species of bats and endemic subspecies of chaffinch and firecrest.

Fossil evidence shows that laurisilva forests once covered much of Southern Europe in the Tertiary era (15-40 million years ago). As climate change brought about its demise on continental Europe, the ocean-moderated climate of the island groups Azores, Madeira and Canary Islands maintained relicts of this previously widespread forest type. The Macaronesian forests are unique in their phytogeographical history and in the relict and endemic species they contain

*(excerpt from the World Heritage Nomination, IUCN Technical Evaluation, The Laurisilva of Madeira (Portugal), [http://wbc.unesco.org/archive/advisory\\_body\\_evaluation/934.pdf](http://wbc.unesco.org/archive/advisory_body_evaluation/934.pdf))*

Accommodation was provided by:

- *SASUMa*: The University of Madeira Social Services building (SASUMa) received the “Best 2008 Restoration” Award. The building is located at 253, Santa Maria Street, in Funchal historical centre, near the Contemporary Arts Museum and Madeira Military Museum. For students: dorms of 3p/room (148.75 euro/15 nights); for training providers: single rooms (11.88 euro/night).

Food:

- From Mon-Fri meals were provided through SASUMa services: Breakfast at the residency (3.5 euro), lunch packets in the field (4,8 euro) or lunch at the academic restaurant on campus (6.65 euro), coffee breaks (1.5 euro), dinner at the residency (4.8 euro).
- During weekends breakfast was self-made at the residency (same price). Lunch and coffee breaks were purchased at local supermarkets. Dinner was organized via reservation and negotiation at nearby local restaurants.

## 2. Organization

*Organizing institutes – EDIT (WP8)*

RBINS: Royal Belgian Institute of Natural Sciences

RMCA: Royal Museum for Central Africa

NBGB: National Botanic Garden of Belgium

*In cooperation and close collaboration with:*

SMNS: Staatliches Museum für Naturkunde Stuttgart (WP7)

UMa : University of Madeira

### 3. Schedule of activities

#### September – December 2009

Funding opportunities were examined which might allow the continuation of the EDIT Summer School after the financing period of EDIT in 2011. The following funding options were studied in detail:

The Volkswagen Foundation: enquiry for eligibility was sent via email. The Summer School was non-eligible as “... the Foundation [cannot] step in for other funding organizations which have ceased funding on their part, or support projects if the respective research area already receives adequate funding from other sources.” Furthermore, the Foundation does not pay supplements to travel costs or a scholarship granted by another agency, nor does it globally increase budgets or make up for budget deficits. Since the EDIT Summer School is an activity supported by the EU's 6th Framework Program we do not see any possibility to support it within our Symposia & Summer School Initiative.”

Marie-Curie Initial Training Networks: infoday – this was not directly relevant for the Summer School as a focused scientific research projects (requiring e.g. PhD student and Post-doc involvement in multi-year projects) was required.

Africa call: infoday

Environment call: infoday

Science in Society: this was not directly relevant for the Summer School as an important citizen science component was required.

Life-long Learning Program: Erasmus Intensive Program: infoday – this was not directly relevant for the Summer School as an Erasmus University Charter or a Erasmus Consortium Placement certificate were required.

ESF ENSS networking program: this was not directly relevant for the Summer School as the current call for ENSS Networking programmes focuses on plant genomics.

COST (a European Science Foundation initiative, European Cooperation in Science and Technology): this was directly relevant for the EDIT Summer School in cooperation with WP7 biodiversity and monitoring activities. An application was submitted.

A COST application was submitted, entitled “Long term biodiversity Inventories and Monitoring”. The pre-proposal was rated as average. We were invited to re-submit a pre-proposal in March 2010 taking into account the remarks of the reviewers.

In the framework of the COST application, contact was made with “A Long-Term Biodiversity, Ecosystem and Awareness Research Network” (ALTER-Net) and “Marine Biodiversity and Ecosystem Functioning” (MarBEF). These networks are highly complementary: All three NoEs have established large networks of biodiversity monitoring sites, partly with intensive inventories being undertaken; they have also initiated successful training schemes in the form of Summer Schools, individual training programs and collaborations with academic bodies, but their outputs have not been fully integrated. A potential collaboration between the 3 NoEs could therefore provide a strong basis when applying for the highly competitive funds of the EU (and other funding bodies).

An important Agreement to Collaborate (AtC) with the Australian Biological Resources Study (ABRS) and the South African National Biodiversity Institute (SANBI) was developed by WP8 (represented by the RBINS) in coordination with WP3 and thus also undersigned by the RMCA. This AtC can have important implications for the sustainability of the EDIT Summer School of Taxonomy program, as funding may be made available within this context. Further negotiations on the exact modalities and practical implementation of the AtC are underway.

The report of the EDIT Summer School 2009 was filed in November 2009 and made available online at: <http://www.atbi.eu/summerschool/node/177>

### January- February 2010

The main task in January consisted of selecting a suitable site to hold the 2010 EDIT Summer School of Modern Taxonomy. For some time Alpi Marittime and Mercantour were considered. Thereafter Roscoff (France) was considered as a possible location. When each of these locations eventually fell through, training providers and students from previous Summer Schools were contacted to ask for suggestions.

A list of possible locations was compiled and local contact persons contacted to ask for details concerning their suitability. All locations were known to be of interest from a biodiversity viewpoint. Locations were ranked using the following criteria: estimated travel cost, estimated accommodation and food cost, availability of wifi/internet, possibility to rent/loan lab equipment and accessibility (time and difficulty/ease to get there). All in all, 17 locations in 8 European countries were considered. A summary of the locations was submitted to the selection committee (including members of the following institutions RMCA, RBINS, NBGB, SMNS, MfN).

Finally, the decision was made to hold the 3<sup>rd</sup> EDIT Summer School 2010 on the island of Madeira, Portugal. In February, Madeira suffered flash floods and mud slides due to severe storm weather. However, the effects of the storm were rapidly assessed and no reason was found to change the location of the 2010 EDIT Summer School.

### March 2010

The call for students and training providers to apply to the third EDIT Summer School of Modern taxonomy 2010 was launched on 05/03/2010. Reactions to the call were fast and within 20 days we had received already 10 student applications and 23 teacher applications.

An amended version of the COST application was submitted on 26/03/2010.

### April 2010

On 08/04/2010 training providers were notified of their successful application (or not). A preparation visit to Madeira was made by Kim Jacobsen and Stijn Cooleman from 24/04 – 01/05/2010. The following local contact persons were met during this visit:

1. University of Madeira: Prof. José Costa (Rector of the University), Prof. Miguel Carvalho (Head of the Center for Macaronesian studies), Dr Susana Fontinha, Enio Freitas; Dr Nuno Rebolo (Director of the University residence), Prof Dora Pombo;
2. Natural Park of Madeira: Pedro Sepulveda Monteiro, Dr Dinarte Teixeira;
3. Madeira Wind Birds (commercial bird watching company): Catarina Fagundes, Hugo Romano;
4. Marine Biology Research Station: Dr Manuel José Biscoito, Dr Mafalda Freitas (Director of the Marine Biology Station), Dr Ricardo Araújo (Director of the Natural History Museum), Dr Thomas Dellinger.

### May 2010

On 21/05/2010 we received the message that the amended COST proposal was not among the 8 top ranked proposals and was, therefore, not considered for funding.

The call for students for the EDIT Summer School was closed on 31<sup>st</sup> May 2010.

### June 2010

Students were notified if they had been accepted (or not) on 11/06/2010. The selection committee consisted of the following persons: Isabella Van de Velde (RBINS), Thierry Backeljau (RBINS), Juan Carlos Monje (SMNS), Patricia Mergen (RMCA), Kim Jacobsen (RMCA), Louette Michel (RMCA) and Jérôme De Greef (NBGB). Further management of activities in preparation of the Summer School continued (organization of transport of a limited amount of equipment to the location of the Summer School; acquiring the syllabus contributions from each training provider; organizing sampling permits in liaison with the National Park authorities of Madeira).

Our liaison at the University of Madeira, Enio Freitas, played a significant role in all aspects of preparation and organization of the Summer School.

## July 2010

The EDIT Summer School 2010 was held from 17/07/2010 – 01/08/2010.

## August-September 2010

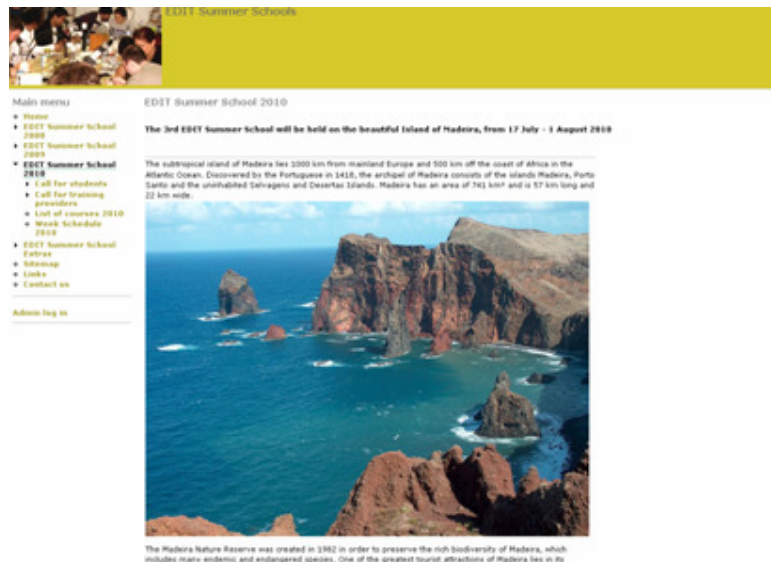
The report of the third Summer School was written.

## 4. Outreach

### 4.1. Website

<http://www.atbi.eu/summerschool>

The website was updated as the organisation of the 3rd EDIT Summer School 2010 progressed.



Screenshot of the EDIT Summer School website

### 4.2. Mailing lists, websites and forums

The mailing lists used during previous calls were used to advertise the EDIT Summer School.

In addition the following website and forums were contacted:

The EDIT Summer School 2010 was also advertised via the following websites and internet forums.

MarBEF (EU NoE Marine Biodiversity and Ecosystem Functioning),

AlterNET: EU NoE A long term biodiversity, ecosystem and awareness research network

<https://listserv.heanet.ie/cgi-bin/wa?A2=ind1003&L=MARINE-B&P=538>: MARINE-B Archives

[www.keytonature.eu](http://www.keytonature.eu): *KeyToNature: a new e-way to discover biodiversity*

IPCB (International Press Centre for Biodiversity research).

News of the Third EDIT Summer School 2010 was later picked up and advertised independently by other websites, such as

[www.eu-nomen.eu](http://www.eu-nomen.eu): A Pan-European Species directories Infrastructure (PESI)

[www.sci.utu.fi](http://www.sci.utu.fi): University of Turku, Finland

[www.cm-funchal.pt](http://www.cm-funchal.pt): Municipal Council of Madeira, Portugal

<http://www.luonnontieteellinemuseo.fi/info/>: The Finnish museum of Natural History, University of Helsinki, Finland

[www.eurobiodiversa.org](http://www.eurobiodiversa.org): Biodiversa is an ERA-net (European Research Area) project where 19 European research funding agencies seek best practice as a basis for cooperation in order to strengthen European research.

### 4.3. Flyers & poster

A flyer and an A3 poster (Annex A2) were made to advertise the EDIT Summer School during meetings (e.g. Environment Call EU-infoday).

### 4.4 Newsletter and Press

The Summer School was advertised in the EDIT Newsletter of April 2010, Newsletter #20.

An article appeared in the Local newspaper “Diário de Notícias da Madeira” on 7 August 2010: <http://www.dnoticias.pt/imprensa/diario/221995/madeira/222014-30-investigadores-em-curso-da-uma>

## 5. Selections

### 5.1 Selection of students

In total 58 students applied on-line for the EDIT Summer School 2010. Of these, 49 applications were complete and timely before the deadline. From these 49 students, 20 students were chosen to receive a grant from EDIT to attend the EDIT Summer School 2010.

Statistics of the selected group (n=20) of students (List of participants, Annex A3):

- Nationality: 15 nationalities
- Location of University/Institute: 16 universities/institutes in 14 countries
- Gender: 65% Female vs. 35% Male
- Degree: 35% PhD vs. 65% MSc

### 5.2. Selection of training providers

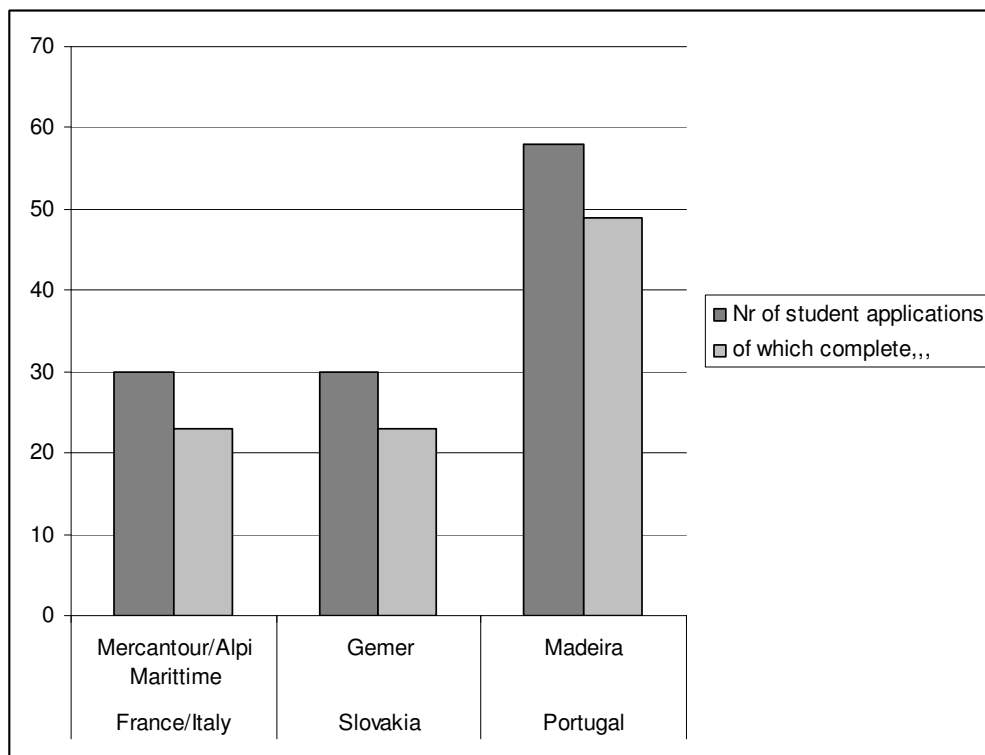
In one month's time, 31 training providers applied to teach a course during the EDIT Summer School 2010. Of these, 15 training providers were selected using the following criteria:

- Demonstrated expertise in the field for which they volunteered using relevant publications
- Balance in the diversity of taxonomic topics covered: i.e. botany vs. zoology, vertebrates vs. invertebrates, marine vs. terrestrial, etc.

Statistics of the selected group of training providers (List of participants, Annex A3):

- Location: 9 countries
- Universities/Institutes: 13 different universities/institutes
- Gender: 33% Female vs. 67% Male

### 5.3 Evolution of student applications since the First EDIT Summer School



**Figure 1: Evolution of the number of student applications received annually since the beginning of the EDIT Summer Schools in 2008**

## 6. Activities during the Third EDIT Summer School

### 6.1. Curriculum

Modules	Course Topic & Description	Location of module	Lecturers/Field researchers	Institution or University
Welcome and general introduction to the Madeira Nature Reserve	The history and importance of the Madeira Nature Reserve, natural resources management and sustainability, UNESCO World Heritage site Laurisilva Forests of Madeira	Classroom √	Dr Claudia Delgado	CIIMAR - Centre of Marine and Environmental Research of Madeira, Portugal
All Taxa Biodiversity Inventories and Monitoring	Origin of the concept and current implementation of ATBI+M within the EDIT framework. Presentation of the case of PNM/PNAM	√	Marie-France Leccia	Parc National du Mercantour, France
Collections management and care	To ensure that specimens in a museum or research institution continue to stay in good condition and remain useful, one has to optimize the conditions they are kept in. As conservation work starts in the field and ends with a proper database, this course covers all the major steps needed to have a well maintained collection.	√	Garin Cael	Royal Museum for Central Africa, Belgium

Modern field work and specimen collection protocols	Entomological research in protected areas: Coleoptera	√	√	Dr Luca Bartolozzi	Museum of Natural History of the University of Florence, Italy
	Moss dwelling Tardigrada - from sampling to their identification	√	√	Dr Peter Degma	Comenius University, Slovakia
	Taxonomy in Ornithology – Madeira	√	√	Stijn Cooleman	Royal Museum for Central Africa, Belgium
	Leafhoppers of Madeira: taxonomy, endemism and reproductive biology	√	√	Dr Dora Pombo	University of Madeira, Portugal
	Marine Macroalgae	√	√	Dr Willem W.F. Prud'homme van Reine (professor emeritus)	Netherlands Centre for Biodiversity Naturalis (NHN), The Netherlands
	Surveying bats for distributional and ecological studies: methods and applications;	√	√	Dr Danilo Russo	Università degli Studi di Napoli Federico II, Italy
	Introduction to geo-referencing: how to use GPS: a practical introduction	√	√	Bart Meganck	Free lance, Belgium
	Island Biogeography and Evolution of plants	√	√	Dr Rosalind Searle	Open University, UK
	Madeira Island Land Snails	√	√	Dr Dinarte Nuno Teixeira	Direcção Regional do Ambiente (Regional Environmental Department of Madeira Government), Portugal
EU funding opportunities for students and early career researchers	Sampling continental freshwaters	√	√	Dr Antonio Valdecasas	Museo Nacional de Ciencias Naturales, Spain
	Botanical collections	√	√	Dr Ernst Vitek	Natural History Museum Vienna, Austria
	Information on funding opportunities for research in Europe	√		Vanessa Demanoff	Museum National d'Histoire Naturelle, France
Documenting diversity	Digital identification tools and user generated content	√		Dr Stefano Martellos	University of Trieste, Italy

## 6.2. Weekly schedule

Programme of the EDIT Summer School ‘Modern taxonomy and Field Work’

	Sat 17/07	Sun 18/07	Mon 19/07	Tue 20/07	Wed 21/07	Thu 22/07	Fri 23/07	Sat 24/07	Sun 25/07	Mon 26/07	Tue 27/07	Wed 28/07	Thu 29/07	Fri 30/07	Sat 31/07					
8.00	Arrival	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast @ 6.30	Breakfast	Breakfast @ 7.30	Breakfast	Breakfast					
9.00		Welcome and Intro to Madeira	Botanical collections	ID Keys	Lab work - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections	Field work Chão da Ribeira - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections	Lab work - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections	Free day	Via cable car to Botanical garden	Chiroptera	Early start Field work Ponta da São Lourenço - Plant ecology, Snails, Leafhoppers, Macroalgae -	Lab work Bat bioacoustics	Field work Porto Moniz - Plant ecology, Snails, Leafhoppers, Macroalgae -	Lab work for 10 students Macroalgae (cont'd field work for the others)	Lab work - Snails and leafhoppers	EU Funding opportunities				
10.45		Coffee	Coffee	Field work Ribeiro Frio - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections	Coffee		Coffee		Coffee	Coffee	Coffee	Coffee			Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
12.30		Coleoptera	Hemiptera		Lab work		Lab work		Lab work	Lab work	Lab work	Lab work			Macroalgae	Lab work Bat bioacoustics	Lab work Bat bioacoustics	Plant ecology, Snails, Leafhoppers, Macroalgae -	Lab work - Snails and leafhoppers	Student presentations
13.30		Lunch	Lunch	Lunch	Field work Ribeiro Frio - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections		Lunch		Lunch	Lunch	Lunch	Lunch			Lunch	Lunch	Lunch	Afternoon lab work for 10 students Macroalgae (cont'd field work for the others)	Lunch	Lunch
15.30		Tardigrada	Freshwater sampling	Field work Ribeiro Frio - Coleoptera, Tardigrada, Freshwater sampling, Botanical collections			Lab work		Lab work	Lab work	Lab work	Visit of Natural history Museum at the Botanical gardens			Ecology and Island biogeography of plants	Preparation of student presentations	Preparation of student presentations	Afternoon lab work for 10 students Macroalgae (cont'd field work for the others)	Lab work Snails and leafhoppers	Student presentations
15.45		Coffee	Coffee				Coffee		Coffee	Coffee	Coffee	Coffee			coffee	coffee			coffee	coffee
18.00	GIS	GIS	GIS	Lab work	Lab work		Lab work		Lab work	Ornithology	Ornithology	Group 1 Boat trip bird watching			Group 2 Boat trip bird watching	Group 2 Boat trip bird watching	Lab work Ecology of plants	Lab work Ecology of plants		
19.30	Dinner in town	Dinner in town	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner in town	Dinner in town	Dinner	Dinner	Dinner	Dinner	Dinner	Final Dinner in town					
20.30									Group 1 Night trip Bats - Group 2 Zino's Petrel		Group 2 Night trip Bats	Group 1 Night trip Bats	Group 1 Zino's petrel							

### 6.3. Field trips and Excursions

The following locations were visited during the Field Work days:

#### Laurel Forest areas:

- Ribeiro frio: 17km North of Funchal, Ribeiro Frio is known for its gardens and walking paths, including the levada walk to the stunning view at Balcões. The area is covered by numerous native plant species and tall trees and is part of the Laurissilva Forest.
- Chão da Ribeira: On the North coast. A river runs through a valley into the sea at Seixal. The valley is surrounded by high mountains covered with typical Laurisilva vegetation.
- Paul da Serra / Faial / Seixal: Paul da Serra is the longest and highest plateau in Madeira with typical higher altitude vegetation. Faial lies between Seixal and Paul da Serra. It is characterized by century-old *Ocotea foetens*, a species of the Lauraceae family characteristic to Macaronesia and present since before the discovery of the island. Seixal is a coastal village, with natural pools and a rocky shoreline, ideal for Macroalgae sampling.

**Ponta de São Lourenço**: The most arid part of Madeira, including a very high number of endemic species.

During the second week three evening excursions were organized to view birds and bats.

Ornithological Excursions (source: Report compiled by S. Cooleman 08/2010)

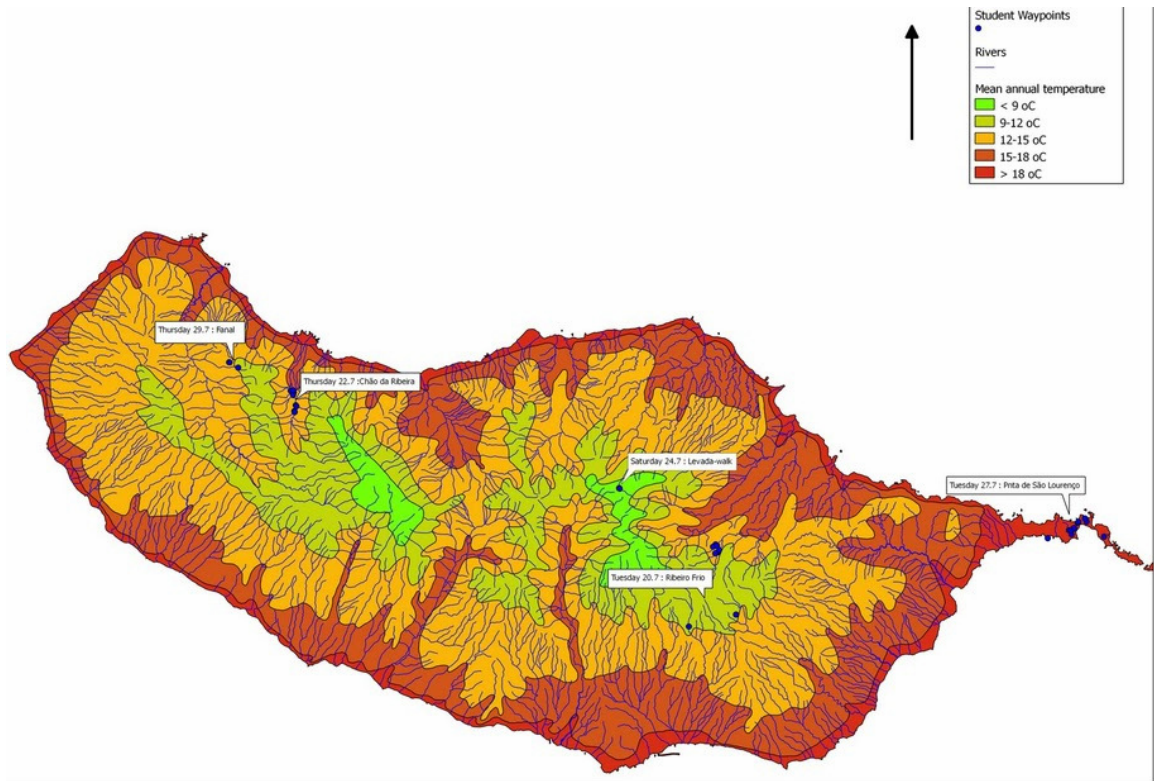
- **Zino's Petrel colony night excursions** (21h-01h) were previously arranged via (Pedro Sepúlveda Monteiro of) the government authority Parque Natural da Madeira (PNM). A warden gave permission to enter the protected site after sunset to visit the breeding colony of the endemic Zino's Petrels *Pterodroma madeira* that:
  - is considered endangered on the IUCN Red List;
  - is Europe's rarest breeding seabird (75-80 pairs) and the only endemic seabird at species level on Madeira island;
  - nests exclusively in burrows on steep slopes of the highest peaks of the central mountainous massif.

After nightfall when predation by gulls is reduced to nil, Zino's Petrels fly to their breeding area where it is possible to hear these pelagic birds calling from April to September (the best time being July).

- **Evening pelagic boat trips** (18h-21h) were previously booked via Madeira Wind Birds with their rigid-inflatable boat (for 12 passengers) in order to chum and drift for seabirds (especially tubenoses like Gadfly-Petrels which can hardly be seen flying closeby otherwise). These pelagic birdwatching boat trips took place in the waters south of Ponta de São Lourenço up to open waters between the tip of Ponta de São Lourenço and Desertas Islands (above an 'underwater ridge' amplifying the upwelling effect resulting in a relatively high species richness) where tubenoses fly by (before heading to their nest sites after dusk).

#### Bat excursions – Night excursions

In the night excursions, basic information on the bats of the island and their echolocation behaviour was provided by Danilo Russo accompanied by Sergio Teixeira. The main functions of bat detectors (frequency division, heterodyne, direct ultrasound sampling) were illustrated and bats were detected in the field (*Pipistrellus maderensis* and *Nyctalus leisleri verrucosus*)



**QuantumGIS generated map of mean annual temperatures displaying student waypoints collected during excursions on the island of Madeira, Portugal between 17/07/2010 and 01/08/2010 (source: Julia Fält)**

#### 6.4. Student presentations

Students were divided into three groups for the student presentations. Each group was given a topic. At the end of the Summer School each group made a presentation.

The student presentation topics during the EDIT Summer School 2010 were:

- Island Life - adaptations to insular life
- What is “Modern Taxonomy”?
- Taxonomy and Society

#### 6.5. Extra-curricular activities

The building of the University residence is located in the Funchal historical centre, near the Contemporary Art Museum and Madeira Military Museum. Funchal is a very accessible town to visit as a pedestrian with multiple tourist attractions, including museums, shopping areas & tropical gardens. After classes students could easily explore the town. Many students also enjoyed swimming in the sea before classes or field work, as the residency was only about 50m from the sea-side.

On Saturday 24/07/2010 the students and training providers were therefore given a free day. Most participants took the opportunity to go hiking to some of the spectacular sites in the centre of the island, while others preferred to stay in Funchal and go swimming.

On Sunday 25/07/2010 a trip was organized to the Botanical Gardens, in the mountains above Funchal via cable car. A first cable car travels from Funchal downtown to Monte and a second crosses another valley to the Botanical Garden.



Cable car over Funchal (Photo by P. Degma)

## 8. Feedback from Participants

Students and training providers were requested to complete an evaluation sheet after the Summer School.

### 8.1. Feedback from students



The student participants at the Third EDIT Summer School 2010 (photo: V. Demanoff)

For an overview of the feedback given by the students concerning their general experience of the EDIT Summer School please see Figure 2.

The 3<sup>rd</sup> EDIT Summer School met the expectations of most students (95%). All students found they acquired new skills, or refreshed existing skills, during the Summer School and a majority (80%) of the students believe their participation will benefit their careers, through networking and the specific skills acquired. All students found that their interest in taxonomy increased, however, fewer students were “more interested” to pursue a career in taxonomy – mainly because they were already following a taxonomy-oriented career path. Almost all students (95%) found the classes suitable for their level of education, with only one student who found the classes easy. Most students (95%) found that there was enough time to discuss with the teachers, as they resided in the same building and there was ample opportunity during field work, evenings, meals, etc. One student found that the lectures were too long and that this impeded the discussion time. Most students (90%) found the presentations at the end of the Summer School a useful way of summarizing the past two weeks. One student suggested reporting on actual data gathered during the Summer School as a more relevant exercise, while another student found the student presentations unnecessary and stressful. Feedback and information provided by the organisation before the Summer School was adequate for all students. The lab facilities were rated good to excellent by 90% of the students. Half of the students found that there was enough time to rest and recover between the activities and a further 30% had no opinion on the recovery time (“neutral”). Those that disagreed cited the schedule of the second week, which was busier than that of the first, with many evening/night activities scheduled; the intensity of the program was also not entirely equal for all student groups. The Summer School website was rated good to excellent by 85% of the students. All students were unanimous: they enjoyed the experience and would recommend participation to their fellow students. One opinion, shared by several students, was that the Summer School would have benefited from more involvement of local researchers, as these were generally the most knowledgeable with regards to local flora, fauna and the best locations to visit.

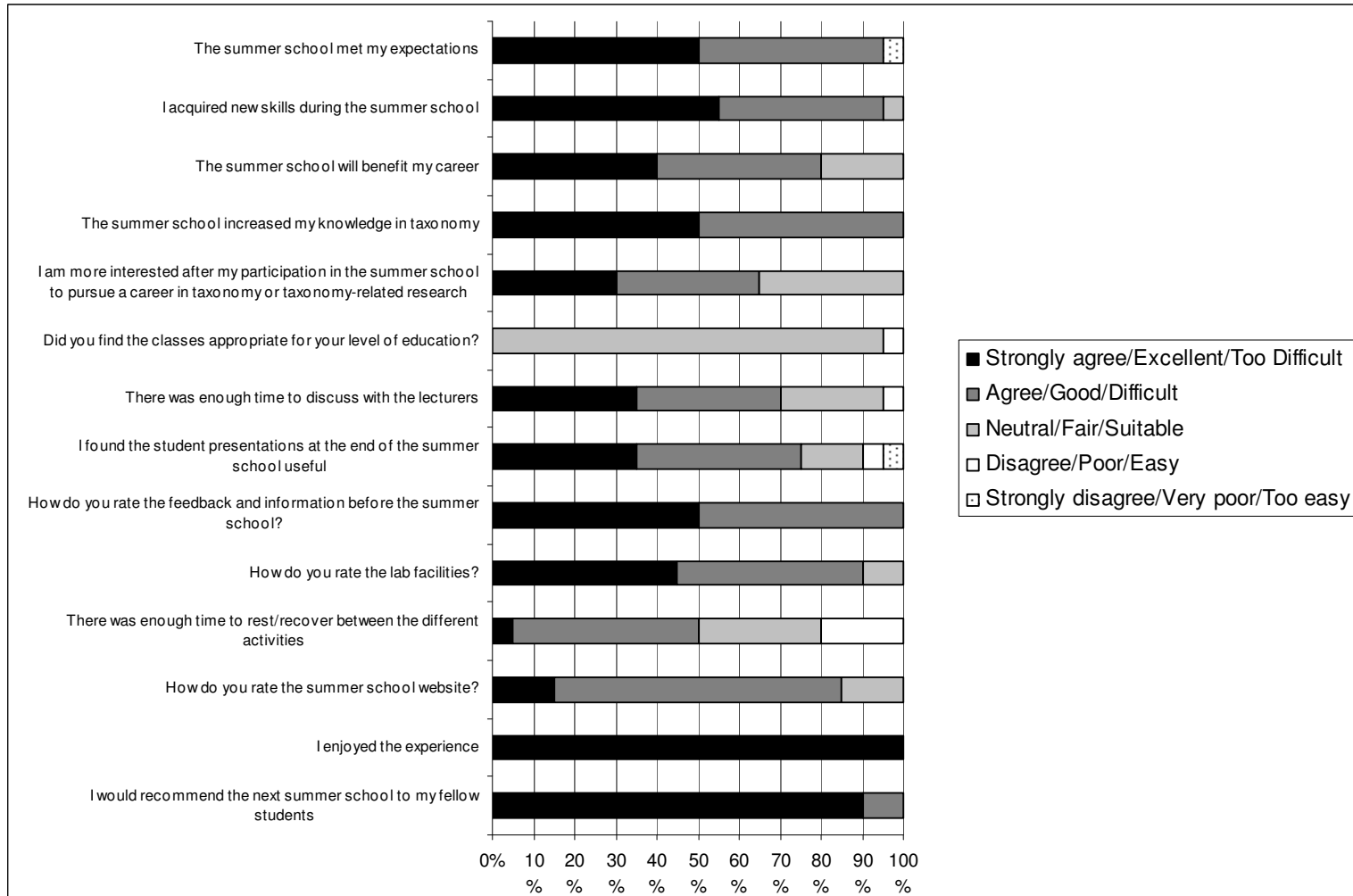


Figure 2: Feedback on students' general experience of the EDIT Summer School 2010

A compilation of comments given by the students is summarized in Table 1.

**Table 1: Comments given by students about their general experience of the EDIT Summer School 2010.**

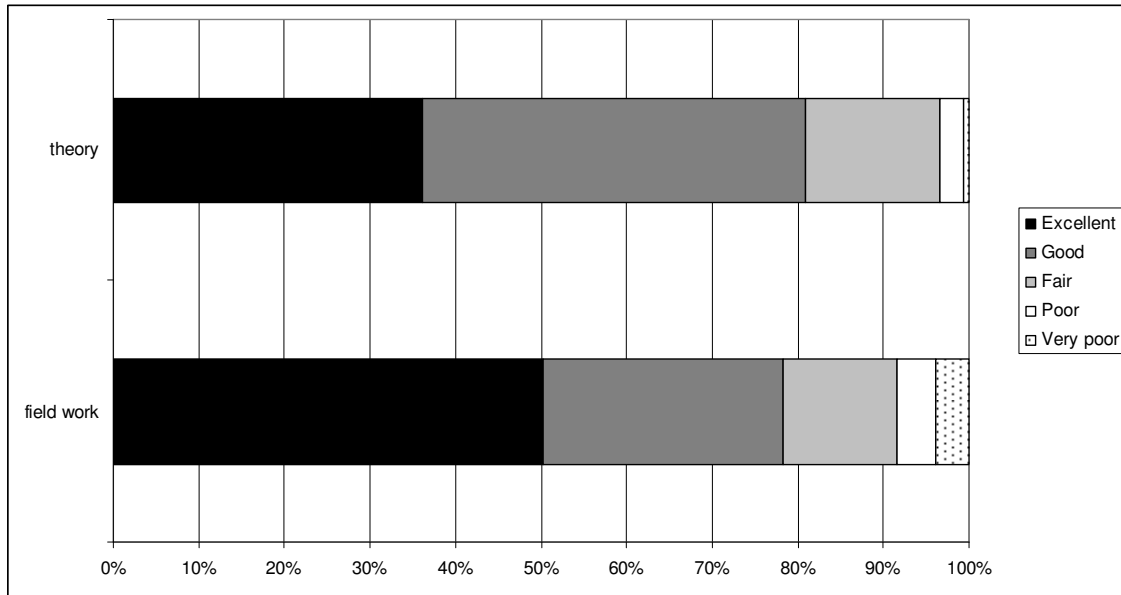
<b>Overall Experience</b>
<p><b>The EDIT Summer School 2010 met my expectations.</b></p> <p>Comments:            It was even better than my expectations!            Oh, it was unexpected for me. I could not even imagine that the program of the Summer School could be so diverse. I did different work with a big desire because for me everything was interesting. The lecturers attracted our interest, material was brightly presented and well structured. Organisation of our life was excellent, accommodation and food very nice and good taste.            The organization was very good            It was an amazing experience, thank you.            I learned a lot about different species. It was also enjoyable - not just dry work. I gained practical experience as well, that I can use in my future teaching activities.            I found the organization of the EDIT Summer School in Madeira pretty interesting in all senses, as I expected to acquire and refresh my knowledge in Taxonomy and to interact with people involved in my field of research            There was too much lecture time. Nobody can concentrate for as long as the lectures lasted. Some of the lecturers didn't know anything about Madeiran flora and fauna; they were there to learn just like us. Local lecturers should've been involved as much as possible. This way, people would know where to go on a field excursion. It would've been a lot clearer and we would've learnt a lot more about Madeiran flora and fauna.</p>
<p><b>I acquired new skills during the Summer School.</b></p> <p>Please explain:            I acquired new knowledge on different taxa            I had an overview and some skills on very different groups that are not common to be studied (Tardigrada, algae, bats, etc)            It was very interesting to get new knowledge and skills in completely different fields            I learned some new field- and lab-skills which you don't get on university lectures.            The combination of both taught and practical modules in a variety of subjects ensured that not one person had previously undertaken work in all the covered subjects, therefore it was easy for people to learn new skills in a different field to the one they are currently studying.            GIS/GPS skills, as well as information about modern databases and data management are very important for me.            Definitely. It was a good overall view of what other fields in Biology are doing. One also gets the chance of doing things that one normally would not do.            I expanded my knowledge from other disciplines.            I'd never collected insects before and I enjoyed learning to identify them.            I didn't really acquire new skills in the tasks I already worked in (entomology, field collection and preparation), but I refreshed my skills, and that was what I hoped for!            I have always been interested in insects and especially in beetles. This Summer School allowed me to learn more about them and I loved it.            Yes, I hadn't worked across phyla before, always only worked with plants, so really benefited from learning how to identify and classify in phyla wasn't familiar with.</p>
<p><b>The Summer School will benefit my career.</b></p> <p>Please explain:            I'm now more aware of the opportunities of working in the field of taxonomy            It will improve my CV            Yes, definitely given me a broader skill set to take to future employment.            The practical skills will come in handy as I plan to go on with field work also in the future            The GPS/GIS skills are extremely desirable to employers, therefore the skills learnt during this module will be most helpful.            Contact with experienced as well as young biologists from other countries gave me fresh insight on</p>

<p>taxonomy and new ideas I can use in the future. This will be an important part for future collaborations – in fact, for actual collaborations</p> <p>I also gained experience about what is necessary to find a job in the future.</p> <p>I need taxonomy for my career, but not only. As people are not looking for taxonomists anymore in most jobs, I don't think I can use this Summer School as an advantage (except to show my motivation and interest for nature)</p>
<p><b>The Summer School increased my knowledge of Taxonomy.</b></p>
<p>Comments:</p> <p>During the Summer School we had a great opportunity to experience modern trends in taxonomy from different fields (both from botany and zoology)</p> <p>Yes, even within the botanical field I was able to pick up new tools for conservation and assessment of vegetation communities.</p> <p>I have always been interested in taxonomy, although I work more with ecology...this course taught me a lot about taxonomy in practice and about the modern society of taxonomists</p> <p>The most important thing for me was that I had an opportunity to refresh some information about why taxonomy is important and now I know how to explain it to others.</p> <p>How to get funding, new modern tools of taxonomy, how to collect, put labels... GIS...yes I increased my knowledge of Taxonomy</p> <p>I think it will be a good idea to teach something about cladistics analysis (how to use some programs like TNT).</p>
<p><b>I am more interested after my participation in the Summer School to pursue a career in Taxonomy or taxonomy-related research.</b></p>
<p>Please explain:</p> <p>I'm more aware of the importance of taxonomy; so, yes I would like to work in this field in the future</p> <p>Yes, now it is a bit clearer to me what is included in taxonomy research on an international level.</p> <p>The school re-enforced my interest in taxonomy, which I had lost towards the end of my degree. Having gained back confidence and enthusiasm in the field of taxonomy, I am now pursuing a career in the subject and contacting the relevant people to establish research projects.</p> <p>I was really into taxonomy before EDIT Summer School</p> <p>I've been always interested in Taxonomy however the course gave me "new hopes". Meeting so many other professionals in the area doing the same, struggling as well for funding; that in itself is rewarding. Also it is good to know that there is still funding available for taxonomy and programs like the Summer Schools.</p> <p>I would certainly like to include more taxonomy in my work, but I don't want to restrain my work to taxonomy, I think the ecology and interactions between organisms are too important</p> <p>My PhD will not cover taxonomy but I can imagine doing a postdoc with a taxonomy component.</p> <p>Taxonomy is my job and my hobby so I do not need any advertisement. It is my way of life :)</p>
<p><b>Did you find the classes appropriate for your level of education?</b></p>
<p>Comments:</p> <p>The material was clearly presented by the lecturers, supplied by appropriate pictures and demonstrations of equipment for field work. All professors were very enthusiastic people who like their fields of research</p> <p>The level was good. The lecturers could maybe check with each other/be given instructions what things they should speak about – now there were many overlapping introductions about Madeiran biogeography and endemics etc</p> <p>Yes, considering the variety of topics.</p> <p>This is a tricky question. I think some of the classes were appropriate and others too basic. But it also depends on the background of the student and that was very diverse.</p> <p>In general, I found it would have been very helpful for all groups covered to have a basic taxonomic introduction. Example: birds: how are they split into groups, how many groups are there and how are they distinguished, which groups exist in Madeira. That would have helped me to follow the rest of the lectures in the topics that I was not very familiar with</p>
<p><b>There was enough time to discuss with the lecturers.</b></p>
<p>What can be improved?</p> <p>Rather a comment: It was wonderful, that the discussion time was not only restricted to the small</p>

<p>time after each lecture – instead one could discuss with the lecturers during mealtimes, in busses, on field-trips... often this kind of informal discussions is even better than the question-answer discussions directly after a certain narrow lecture.</p> <p>If all the lecturers could stay a whole week and not only the days of their own lectures and take part in all of the activities of other professors, there would be more time and opportunities to discuss and exchange ideas.</p> <p>Sometimes a full day of lectures left little time to discuss with the lecturers, but I think it is the only solution for a 2-week course</p> <p>Yes, because we had the possibility to discuss our questions with professors after lectures, during bus trips for field work, for example</p> <p>It would be good to have more time with the locally based lecturers as they were very knowledgeable and enthusiastic.</p> <p>Maybe during classes the time was not enough but the fact that the professors were staying with us in the same residency helped the interaction a lot. Unfortunately, some of the professors did not stay long and we did not have much time to get to know them.</p> <p>We had some time on the field trips and during lunch, coffee break etc. But it could be nice to have some time dedicated for discussion with the lecturers</p>
<p><b>How do you rate the lab facilities?</b></p> <p>What can be improved?</p> <p>Excellent. Nothing needs to be improved</p> <p>Sometimes the groups were too big (-&gt; too few books/microscopes etc.)</p> <p>It would be nice to have the software students are going to work with on every computer</p> <p>Also headphones in the computer room would be very useful (it was amazing to actually hear bat sounds)</p>
<p><b>How do you rate the feedback and information before the Summer School?</b></p> <p>Comments:</p> <p>Very good, every question and doubt was quickly answered.</p> <p>I personally would have liked to have more details before hand, but in general all the information was given with enough time.</p>
<p><b>I found the student presentations at the end of the Summer School useful.</b></p> <p>Comments:</p> <p>I think the presentation were a very good occasion to summarise the knowledge we obtained during Summer School.</p> <p>A good way of involving students</p> <p>They were useful for summarizing the things learned and for enhancing the communication and cooperation amongst students. But, because of lack of time and energy caused too much distress.</p> <p>It is a good method to learn more and get experience presenting.</p> <p>It was interesting to listen other students about different topics in taxonomy and the Island of Madeira. It also is helpful for us as we practice our skills to deal to presentations in English in front of many people</p> <p>I thought it was unnecessary and some people got too stressed about it</p> <p>Not really... it is good to activate the students, but this was maybe not the best way of doing it. Maybe an alternative would be to have the student groups make presentations/posters on the different field-work-results from the week instead of having "Wikipedia-based" presentations?</p>
<p><b>There was enough time to rest/recover between the different activities.</b></p> <p>Comments:</p> <p>A whole day with lectures is too wearisome...it would have been better to have lectures half a day and lab activities the other half for example; this would have helped the time to recover</p> <p>The second week was heavier</p> <p>Just two days were very busy with different activities but they were the most exciting days for me. I enjoyed it and can not say anything negative.</p> <p>First week: yes, second week: no. The group-division/-schedules were suboptimal (but survivable ;)</p> <p>Some days we had night excursions and had to get up very early in the morning</p> <p>We could have had more sleep otherwise it was ok. During the 2nd week we had more to do so it was understandable.</p> <p>Lectures of one hour and half were too long.</p>

<p>One could tell that effort was done to have enough breaks and coffee breaks in between the lessons. The first week was really good regarding resting times, the second week was really tight. Some groups got better schedule than others</p>
<p><b>How do you rate the Summer School website?</b></p>
<p>Comments:  The homepage of the Summer School is helpful but not always enough.  Everything is clear and understandable  Informative... a bit lagging in some aspects (which is very common) – this can make the page look stagnated/dead for external visitors. However, all the information for this year’s participants always came up well in time.  Very good, all information and beautiful pictures.</p>
<p><b>I enjoyed the experience.</b></p>
<p>Comments:  For me it was a fantastic time. I received a lot of taxonomical information in different groups of animals and plants. We became skilful in different kinds of field work (from sampling of algae in the ocean to hearing bats through bat detectors). New opportunities were opened for us like for young scientists. I will never forget this time in Madeira!  Wonderful combination of great teachers, nice participants, internationality, wonderful and diverse nature, great locations, varying classes and field-trips! Fun!  The whole package was excellent  Never had such a cool two weeks in the middle of the Atlantic Ocean. I learned a lot in the same time so I felt really lucky to be chosen and I can only recommend EDIT and the Summer School for fellow students.  The island, the weather and being all day with taxonomist students and teachers, it was wonderful.  It was great. One learned not only from the classes but from the everyday sharing with fellow students and professors as well.  A really nice group and loads to learn and see.</p>
<p><b>I would recommend the next Summer School to my fellow students.</b></p>
<p>Comments:  Already did!  Of course. I also heard about the Summer School from my senior colleagues.  I think it is very valuable experience for young people and I hope for lecturers as well.  Well this year was still very good as we did not have to pay extra to participate. It is good otherwise I could not come. I hope the next Summer School will be advertised and I put it on mailing lists.  Definitively. And I personally feel really grateful for the course, for the effort of the organizing staff, and the funding agencies. It is a great project!</p>
<p><b>Additional comments?</b></p>
<p>Thank you all very much! It was a well organized course, and besides being very useful and inspiring it was also great fun!  Thank you for those two weeks, I learned a lot, met many new people, friends and professional connections, and also had fun! I hope you will get funding!  Thank you very much for such a great experience! I think the Summer School really broadens some minds – mine for sure in botany!  I would like to suggest attracting more native scientists, not only for the field work but also for the lectures.  It became clear over the two weeks that the lecturers/assistants from Madeira held the most information and were extremely enthusiastic and were, therefore the most helpful.  In general, I think there should be more local experts as the practicals that were run by locals were the best as they know what there are looking for and where to find it.  It would have been much better if local researchers had been involved and may have saved the organisation money ~ (instead of paying to bring lecturers from all over Europe)? Also, communication between lecturers – nearly every lecture gave us the same introduction to Madeira at the beginning of their lectures. Each researcher should give an introduction of no longer than 1 hour and the rest of the time for discussion, field work and any other activities.</p>

Students' general appreciation of the theory and field work classes is illustrated in Figure 3. The comments given by the students on individual courses were sent individually to each lecturer and field researcher for their information. These comments and individual ratings will remain confidential between the lecturers and the organizers (Annex A.6).



**Figure 3: Feedback on students' perception of Theory and Field Work during the EDIT Summer School 2010**

**8.2. Feedback from teachers**



Some of the training providers at the Third EDIT Summer School 2010 (photos by H. Prud'homme van reine, B. Meganck, R. Searle, D. Kurzeluk, H. Babik, M. Weizenstein, I. Giordani, T. North, P. Puppo)

The feedback received from the teachers is given in Figure 4 and Table 2.

The EDIT Summer School met the expectations of all training providers and most (80%) found that there was enough time to discuss with the students. The Summer School website was appreciated by the training providers and all said they received sufficient feedback before the start of the Summer School. Students overall knowledge was deemed appropriate by the training providers and both the structure and course topics covered during the Summer School were found to be good to excellent. The organisation of the field work was rated good to excellent by 70% of the training providers. The availability of the computer class at all times without prior reservation was especially appreciated. Some training providers registered irritation at delays during field work. During one of the excursions the combination of marine sampling on the one hand and terrestrial sampling on the other caused some delay, as there was only one bus to move between both locations. The balance between field work and lab work was rated good to excellent by the majority of training providers (75%), while others cited a lack of time during lab and/or field work.

The training providers all found it interesting to work together with taxonomists of different disciplines and all training providers enjoyed the experience and would recommend participation to their colleagues.

In general training providers were (very) pleased with all aspects of the Summer School during the first week, whereas some organisational difficulties were registered during the second week. As mentioned above, the second week was very busy with marine/terrestrial topics covered and many evening/night activities. Future Summer Schools would most likely benefit from a less busy schedule.

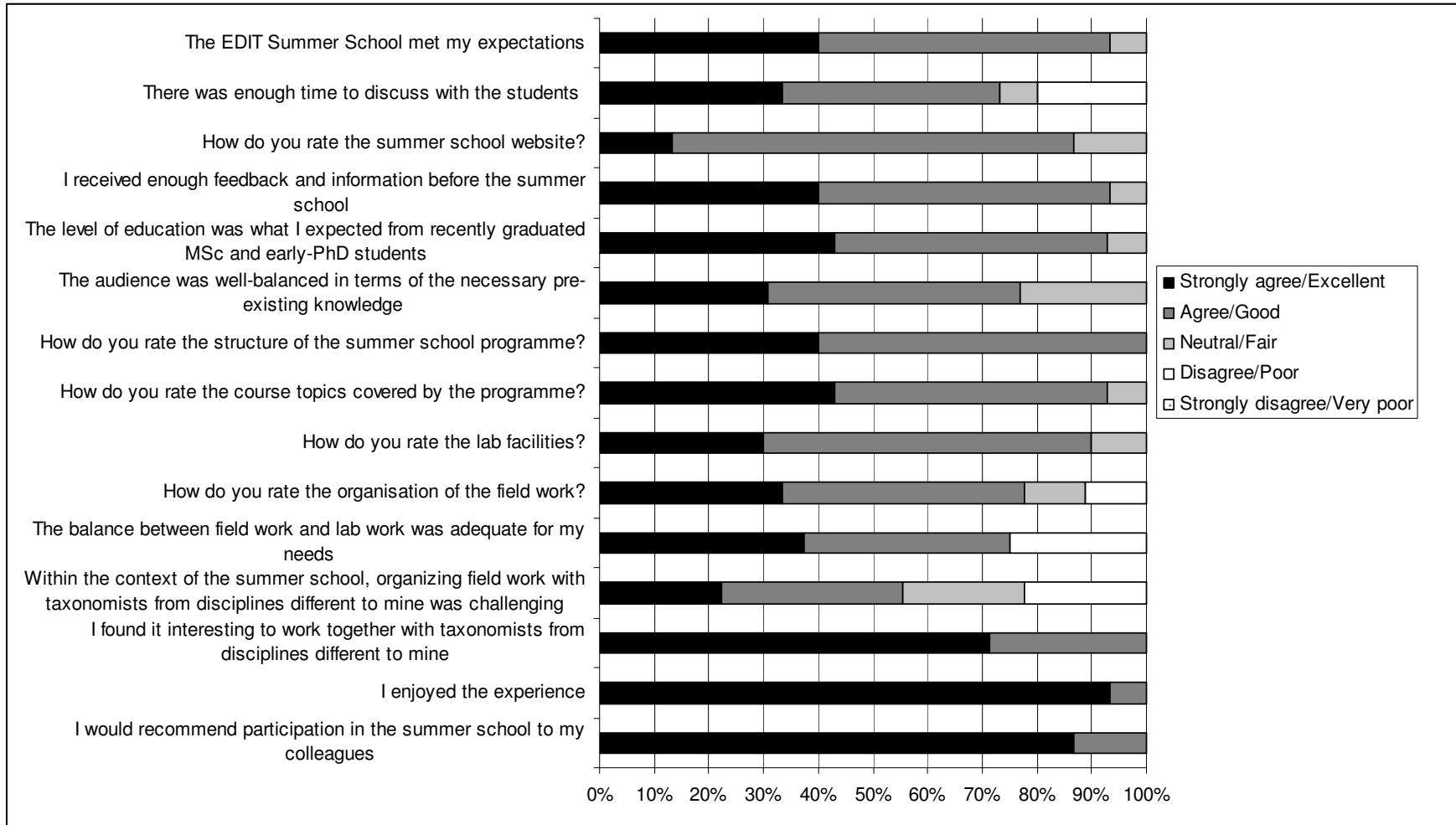


Figure 4: Feedback on teachers' general experience of the First EDIT Summer School 'Modern Taxonomy and Field Work'

A compilation of comments given by the teachers is summarized in Table 2.

**Table 2: Comments given by teachers about their experience of the first EDIT Summer School.**

<b>Overall Experience</b>
<b>The EDIT Summer School 2010 met my expectations.</b>
<p>When I submitted my short course I had hoped that I would meet some student(s) which work(s) with Tardigrades and my course will help him/her/them to improve quality of his/her/their results. On the other hand other aspects of my stay in Madeira were highly beyond my expectations. As a training provider I felt very well treated and comfortable. The environment for theoretical lectures and field work was perfect.</p> <p>It was exactly what I expected I loved to do it</p> <p>The whole trip was very well organised and the support from the people involved in Madeira helped enormously with the Summer School success. Kim and Bart really worked hard to ensure the trip ran smoothly. I was made to feel welcome and part of the team. I was supported at all stages as a teacher.</p> <p>The students were keen, hardworking and a delight to teach.</p> <p>For me, as a first experience, it was fantastic. The students were interested and with a very good background and the University of Madeira labs were well equipped. A very good experience indeed and one to repeat.</p> <p>I really prefer this Summer School to the one which happened in Mercantour/Alpi Marittime because it was more focused on taxonomy (and not with courses on funding for research, ...)</p>
<b>There was enough time to discuss with the students.</b>
<p>The program is very dense because of the diversity of items.</p> <p>Students had enough time for their questions after each presentation. We had a plenty of time for discussions with students during each break between presentations or during dinners as well as during field works. That's why I think no need to improve anything.</p> <p>I think the time was ok, though I missed a couple of hours for lab work to leave space to the head of the department and it seems a few students would have needed that time.</p> <p>The common accommodation &amp; meals offered plenty of time for informal discussions.</p> <p>There was just enough time spent with the students. The only problem was they were so tired from being out so late (2am plus).</p> <p>The final lab session was really too late to fully be effective for the students – Friday 5 pm and they all wanted to catch the erratic bus back to do their presentations. Perhaps first thing in the morning would be better – a quick 2 hour maths session. Also getting the students to use own computers during the lab session next time.</p> <p>The only free time to discuss with the students was at lunch or dinner time or between class intervals. For me the ideal was less classes and more time between them to debate and discuss with the students.</p> <p>Do not make too many ad-hoc time scheme changes and, if you make them, please communicate to the trainers. Maybe we should have tried ourselves to have more discussions with the students.</p>
<b>How do you rate the Summer School website?</b>
<p>The Summer School website is well-arranged and each visitor may quickly find any information that he/she needs.</p> <p>Perhaps it lacked a little practical / logistics info...</p> <p>Lack of information or info is hard to find out. Maybe more interactiveness? And a more simple design?</p> <p>Very informative and easy to use.</p>
<b>I received enough feedback and information before the Summer School?</b>
<p>The communication with Kim was perfect. I received prompt answer or explanation to each of my questions. We agreed on the ideal schedule and needed equipment without any problems.</p> <p>My contacts were perfect.</p> <p>Overall enough, but I did have to ask how things were planned and were going to be done and how much time was going to be allocated on specific days with the students. Also (unforeseen changes) to the timetable affected my teaching planning, but with experience these things should get easier.</p> <p>Kim provided all the necessary information and responded very rapidly to all my questions and</p>

dilemmas.
<b>The level of education was what I expected from recently graduated MSc and early-PhD students</b>
<p>I had not expected particular knowledge in Tardigrada taxonomy from our students as Tardigrades are a neglected group of animals. That was why I submitted my short course to the Summer School. I do not know to rate the level of education of our students but I ascertained that they often knew English names of animals/plants which are out of their specialisation better than Latin ones. I guess this is the effect of the education system in western Europe.</p> <p>Several students, especially entomologists were afraid of technical terms in the keys and could not work with a glossary</p> <p>Yes I think so. I work with such a range of abilities that I guess I am prepared for anything.</p> <p>The level of education of the students was very good.</p>
<b>The audience was well-balanced in terms of necessary pre-existing knowledge</b>
<p>I think that the selection of students was very well done. On the other hand it is possible that such course would be useful also for younger students. In addition it could be suggestive in their future specialisation.</p> <p>This does not really apply to the GIS/GPS course, as no pre-existing knowledge is assumed.</p> <p>There was very wide range of abilities when it came to detailed taxonomic knowledge of specific groups. However the basic taxonomic skills are the same across all subjects, and that is the important aspect.</p>
<b>How do you rate the structure of the Summer School programme?</b>
<p>In my opinion the structure of the Summer School programme was perfectly balanced. From my point of view theoretical presentations, field works and lab works concurred and teachers had sufficient/appropriate time for each component of their courses. The adjustment of the programme had to be difficult with respect to specific requirements of teachers as well as with respect to exigency so that each student could take part in each activity. I appreciate the work-load needed for the preparation of such a complex programme.</p> <p>Very, very interesting, but perhaps a bit too full. It would be good to reserve some time for thinking, processing data (on computer / on maps) and discussion.</p> <p>In my humble opinion it was really good</p> <p>The second week was overfull, especially with late nights. Also they had additional evening work with their presentations. I felt they had enough field work time on botany and that worked fine.</p> <p>The structure of the Summer School was very transversal , but I think the students will benefit a lot more with lesser classes and more time per class.</p> <p>Fieldworks, visits, lecture... Really good program!</p>
<b>How do you rate the course topics covered by the programme?</b>
<p>Suggestions for improvement:</p> <p>The programme of the Summer School contained a lot of interesting topics. They covered such wide spectrum of animal and plant groups that it is difficult to suggest other topics for future Summer Schools. Maybe taxonomy of lichens, some parasitic groups of animals, rotifers and nematodes could be such topics.</p> <p>Image treatment in Taxonomy; cybertaxonomy; Managing scientific literature: how to know what is published, where to find them and how to organize your own library; Critical analysis of Taxonomic history; What is a species and where I can find them...etc etc etc</p> <p>Marine malacology and on other marine groups</p> <p>Every year a whole new range of interesting topics, even on fields one never heard about... Very stimulating and interesting.</p> <p>Really good combination of topics.</p> <p>I think that, in Madeira Island Summer School it would be very good to have a marine mammals class.</p> <p>As for future Summer Schools, I think that could be included classes or more marine subject such as mammals, turtles and so on.</p>
<b>I found it interesting to work together with taxonomists from disciplines different to mine</b>
<p>It was really interesting, as information on the Madeiran nature was more complex in this way.</p> <p>Networking and exchange of ideas is the single most important activity of the School.</p> <p>Exchanging information IS making science.....</p>

<p>It was challenging to indicate and identify birds on field excursions which were mainly organised to sample other taxa (such as Macroalgae, leafhoppers or plants), especially for students without binoculars; luckily, some endemic birds were relatively tame and nearby observable.</p> <p>It was most interesting to meet other taxonomists and get an insight into their fields. Our work complemented each others too. I think we all worked well together.</p> <p>It was very challenging and educationally rewarding to share experiences and knowledge with taxonomists from different disciplines of mine.</p> <p>Very interesting to discover other taxonomic disciplines (like Tardigrades!)</p>
<p><b>I enjoyed the experience.</b></p> <p>My participation in the Summer School was extraordinary experience for me not only because of attractive destination but also because of interesting course topics (for example the observation of Zino's Petrel was very exciting and I am very grateful for the possibility to participate in it) and interesting people which I met there.</p> <p>Beautiful location, good accommodation, good food, nice and helpful people from UMa.</p> <p>Overall, despite being very nervous, and not sure what to expect, I found the whole experience very worthwhile. I really enjoyed the trip and enjoyed teaching the students together with the other staff. Susana Fontinha was most wonderful support on the botany trips and helped make the botany special for the Students.</p> <p>It was a fantastic experience for me and one to repeat in the near future. I wish also to thank the Edit Summer Schools organization for the opportunity to participate in this edition.</p>
<p><b>I would recommend the next Summer School to my colleagues.</b></p> <p>Yes, I enjoy teaching on Summer Schools wherever they are and really enjoy them as well.</p> <p>I would and I will recommend to all my colleagues and friends a participation in the Summer School as it is a very challenging and rewarding experience.</p>
<p><b>Additional comments?</b></p> <p>My personal impression is that the program with its broad variety would better fit to students on a lower level. - They could get an idea of the different taxonomic disciplines and could then decide, what fits them best for further studies. Most of the participants worked on the diploma/thesis and have specialized earlier and have limited interest for other contents.</p> <p>One item, which could be included in future courses, is the safety aspects during field works. Equipment, how to avoid and what to do in case of accidents ... but also group dynamics if in a field camp for long term.... Even experienced researchers are terribly careless in this aspect, and every year several colleagues die in easily avoidable accidents.</p> <p>The idea of the summer course is good, although some would say that more specific and monographic workshops would be better (but I do not agree with this). Students will have to fight in an extremely specialized world in their professional future, so an earlier exposure to some research subjects outside their speciality would help to enrich their research experience and wisdom. In some countries biology and biodiversity is taught as one entity, in others one can study zoology without seeing much of botany and vice versa. Maybe that difference should be explained to the trainers in the list of the participating students. Teaching to students with some experience differs greatly from teaching of relative freshmen. In this respect there is also difference between terrestrial, limnological and marine groups</p> <p>Just to say it was a great experience from both the academic and human perspectives and I do look forward to contributing to one of such initiatives again!</p> <p>A very minor point: in terms of presentation it would have been useful to have an internet access (to demonstrate how to search for calls, projects etc...)</p> <p>Some suggestions:</p> <ul style="list-style-type: none"> <li>* prepare a credit-card sized list with emergency (and taxi) numbers for each participant, as well as a list with all mobile phone numbers.</li> <li>* set up a central data server in advance, where data (GPS routes, photographs, spreadsheets with field data) can be uploaded.</li> <li>* (if possible) : improve internet access in accommodation (e.g. a landline with some 2 or 3 connection points in the foyer)</li> <li>* a slightly lighter programme</li> <li>* a lecture on field safety, especially mountains (stick together, wear good shoes, take enough water,</li> </ul>

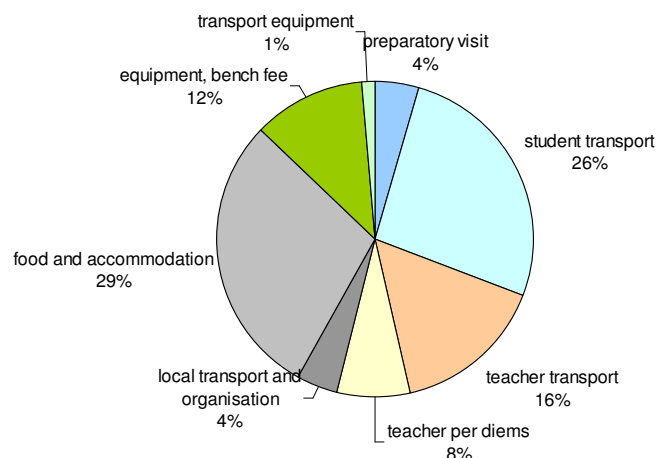
<p>salts and sugars for rehydration, ...)</p> <p>I hope to repeat this experience.</p>
<p><b>Specific questions for field researchers</b></p>
<p><b>How do you rate the lab facilities?</b></p>
<p>There are differences in working times and needs. Botany: Preparation in the evening after field work and changing paper in the following evenings/nights. Therefore the material had to be carried every day between lab and residence.</p> <p>I had excellent lab facilities for my taxonomic course because I negotiated each needed component in detail with Kim before the Summer School. I do not think it is anything to improve.</p> <p>In the first place it was fantastic that a marine lab was available. I would have preferred, however, to have a compound microscope available.</p> <p>There seemed to be a shortage of ecology equipment, but with help from the lab staff we managed to make our own equipment and even the student became involved in helping to make their own quadrates - which I felt added an extra component to the field-work; i.e. it is not all high tech... But as researchers one has to improvise, and that is important for MSc and PhD students to learn too. So I was very pleased how well it all worked out.</p>
<p><b>How do you rate the organisation of the field work?</b></p>
<p>Field works were well organized and localities were ideally chosen.</p> <p>At one locality we went to the wrong place. That was a pity.</p> <p>It was very nice to be able to use the computer room on simple request - even on days when no "official" computer-class was planned.</p> <p>Getting going in the morning and getting started was always so slow, lot of time-wasting waiting around.</p> <p>My other worry on the field trip was headcounts of staff – someone needs to be put in charge of head counting on each trip per bus.</p> <p>I think the punctuality needs to be improved, as I registered significant delays in both field work classes that limited the time available for species collection. As a consequence of the previous stated, in the Fañal field work, one of the groups were unable to finish, as the transportation was due to leave to Funchal.</p>
<p><b>The balance between field work and lab work was adequate for my needs</b></p>
<p>Unambiguously. The schedule of field work and lab work in my course were carefully negotiated in advance.</p> <p>Students were too tired to do much lab work in the afternoon</p> <p>The time was perfect. But timing needs to be a bit slicker to fit everyone in.</p> <p>As the timetable wasn't respected in field work and lab classes, the species collection work and their identification in lab was comprehensively limited. I needed, at least, two more hours in lab. Nevertheless, the great majority of the students achieved the initial objectives.</p>
<p><b>Within the context of the Summer School, organizing field work with taxonomists from disciplines different to mine was challenging</b></p>
<p>The challenge is to really work with the students, not to hold lectures. The different disciplines worked more or less parallel, not really together. But hopefully the students got an impression of different disciplines in the same habitat. However, keeping the students interested was in a few cases not easy.</p> <p>Not really - the challenge was the timing and getting things moving so we are not waiting around for too long.</p> <p>In my case, it was very simple to coordinate my field work classes with Dora in the Ponta de São Lourenço and Fañal field trips. Nevertheless, our Fañal field trip registered a significant delay as we needed to wait that the students finished the algae field trip.</p>

## 9. Financial report

### 9.1 EDIT funding

Funding requested from EDIT, based on preliminary budget estimates prior to the execution of the Summer School was 37044 euro (not including institutional overheads).

The known expenses in September 2010 amounted to 39321.87 euro (not including overheads). Figure 5 illustrates the structure of expenses made during the 3<sup>rd</sup> EDIT Summer School 2010.



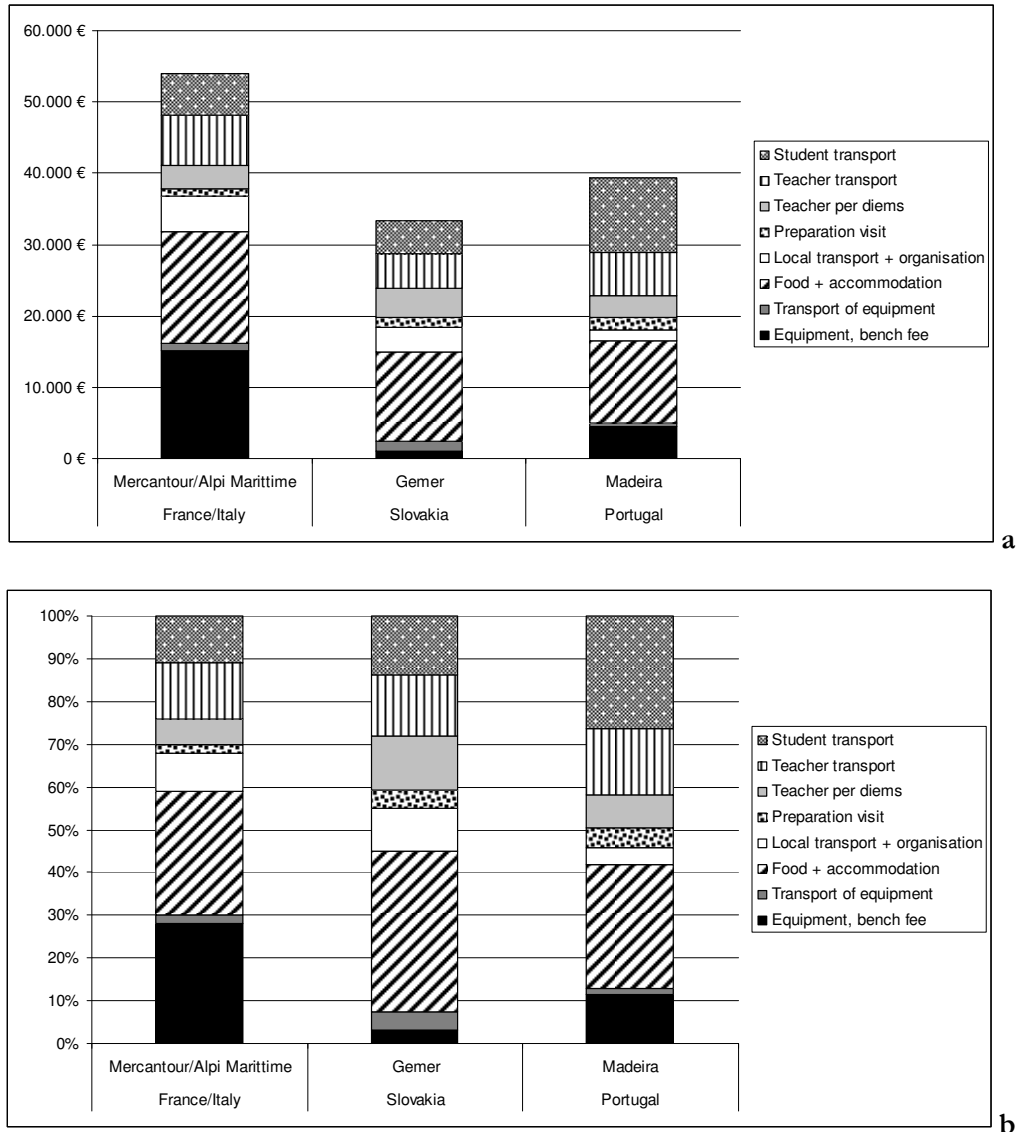
**Figure 5: Structure of the expenses made during the Third EDIT Summer School 2010 (based on known expenses in September 2010)**

## 9.2 Evolution of the annual expenses made during the EDIT Summer Schools

The evolution of the expenses made during the EDIT Summer Schools in 2008, 2009 and 2010 are illustrated in Figure 6a and Figure 6b. Table 3 shows the actual expenses made in euro. The most expensive Summer School was, understandably, the first – due to the purchase of equipment, which was used in following Summer Schools.

**Table 3: Comparison of expenses made during the EDIT Summer Schools in 2008, 2009 and 2010**

EDIT Summer School	2008	2009	2010
Country	France/Italy	Slovakia	Portugal
Location	Alpi Marittime	Gemer	Madeira
	(expenses in euro)		
Preparation visit	1 080	1 448	1 733
Equipment, bench fee	15 120	1 018	4 532
Transport of equipment	1 080	1 447	518
Food + accommodation	15 660	12 500	11 427
Student transport (n=20)	5 940	4 631	10 377
Teacher transport (n=21, 21, 16)	7 020	4 768	6 118
Teacher per diems	3 240	4 175	3 011
Local transport + organisation	4 860	3 382	1 607
<b>Total</b>	<b>54 000</b>	<b>33369</b>	<b>39 322</b>



**Figure 6: Evolution of expenses made during the EDIT Summer Schools (based on known expenses in September 2010): (a) actual expenses and (b) relative contribution of each expense category to the total expenses**

### 9.3 Sponsorship

Bat detectors were kindly provided on loan by Lars Pettersson of Pettersson Elektronik AB. Pettersson Elektronik AB is a company specialized in electronic equipment for detection and analysis of bioacoustic ultrasonic signals. With their *Ultrasound Detectors*, or bat detectors, you can monitor the ultrasonic calls from bats, a great aid in identifying different species. They also supply analysis software for sound analysis on personal computers. More information can be found here: Pettersson Elektronik AB, Uppsala Science Park, Dag Hammarskjolds v. 34A, S-751 83 UPPSALA, Sweden; Tel: +46 1830 3880 Fax: +46 1830 3840; [info@batsound.com](mailto:info@batsound.com)

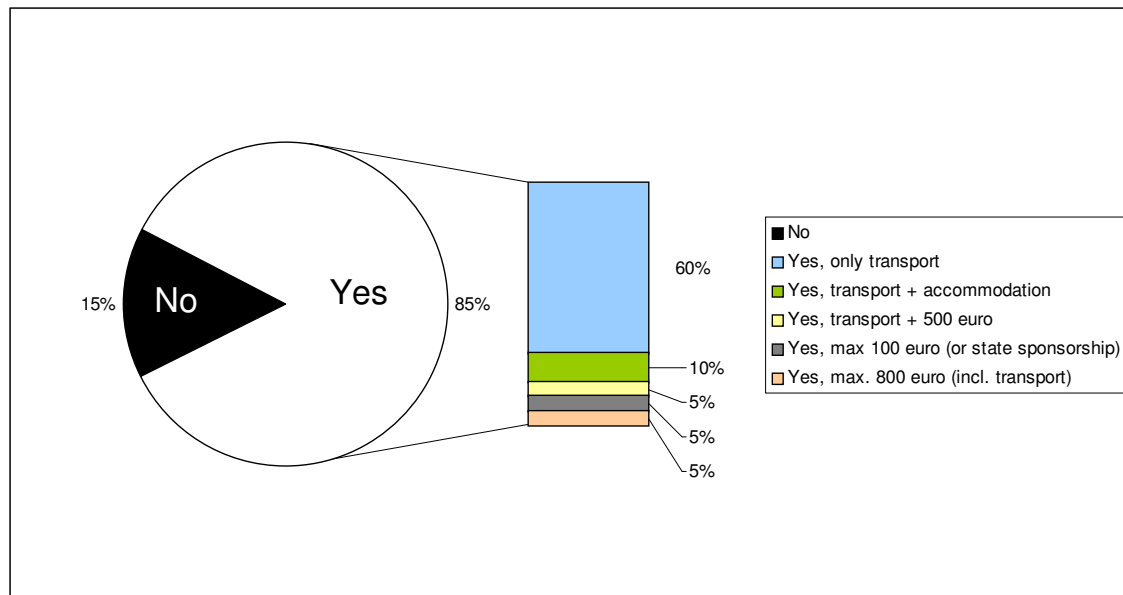
## 10. Continuation & sustainability

Publication: The syllabi of the three EDIT Summer Schools will be available online via an e-learning platform (Moodle), in order to increase outreach after the completion of the EDIT project.

The syllabi of each EDIT Summer School since 2008 are available on a Moodle site. Moodle is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a free web application that educators can use to create effective online learning sites.

See also: [http://edit.africamuseum.be/wp8\\_summer\\_school\\_learning/](http://edit.africamuseum.be/wp8_summer_school_learning/)

Sustainability of the Summer School: The students were asked whether they would have applied to participate in the EDIT Summer School if a fee had been required. If they answered yes, they were then asked how much they would have been willing to pay. The responses are summarized in Figure 7.



**Figure 7: Response from 20 students when asked: Would you apply if the costs associated with the Summer School were not covered by EDIT? Would you be willing to pay a fee to attend the Summer School?**

A majority of students would have applied, even if participation in the EDIT Summer School was not free of charge. Most of the students would have been willing to pay for their own transport, but few were willing or able to pay for any higher costs associated with participation. One student suggested a fixed fee, for example 800 euro, which would include costs related to participation (food, accommodation...) and transport – in order to avoid discrimination of students travelling from further away, and therefore more expensive, destinations. Students also cited the importance of credits: if the EDIT Summer School can provide credits, many universities are able to provide a grant for the students to attend. Another student suggested a page with links to resources for funding opportunities for students to attend the EDIT Summer School, in which case earlier acceptance to participate would be important so that students have sufficient time to source for their own funding.

If students covered their own transport expenses and considering the structure of expenses made during the EDIT Summer Schools, we estimate the need for a further 30 000 euro's annually (not counting staff costs).

Conclusion: The EDIT Summer School is most likely not sustainable without external funding.

## 11. Suggestions to improve future Summer Schools

1. Organization: More local training providers: Especially for locations where the cost of transport is an important component of the budget. Additionally, local training providers are generally more knowledgeable about local flora, fauna and locations.

2. Organization: Prepare a credit-card sized list with emergency (and taxi) numbers for each participant, as well as a list of all mobile phone numbers (of participants and staff).
3. Organization: Set up a central data server in advance, where data (GPS routes, photographs, spreadsheets with field data) can be uploaded.
4. Organization: Try to have internet available during the presentations
5. Objectives: Discuss whether the Summer Schools might better fit students at a lower educational level (BSc instead of MSc/PhD). Given the broad variety of topics, students at an earlier stage of their career may become motivated to choose for taxonomy later on – as opposed to students who are already involved in taxonomy.
6. Curriculum: A class devoted to safety issues, especially when field work is carried out in mountainous terrain.

## Annex

### A1. Travel Guidelines:

#### (a) Training providers

#### (b) Students (same as for training providers excluding the clauses on extension of stay & per diems)



## Travel and reimbursement guidelines<sup>1</sup> for the EDIT Summer School 2010 (Training providers)

This document provides general guidelines for arranging your travel and getting reimbursed. These guidelines should be followed closely.

1. *General* - EDIT will pay per diem and accommodation for invited participants to arrive on the day before the event and leave on the day following the event. Per diem will be calculated on the basis of the number of days.
2. *Extension of stay (only for training providers)* – Participants can extend their period of stay at their own expense (11,88 € per night). Extended stays require prior approval from EDIT and must be requested within 3 weeks after receiving these travel guidelines. If you wish to carry out fieldwork during an extended stay, please contact EDIT.
3. *Per diem (only for training providers)* - EDIT will provide a per diem of 60€ per day, however, the per diem rate will be reduced by 15% when breakfast is provided, by 30% when lunch is provided and by 30% when dinner is provided.
4. *Insurance* - Valid travel health insurance for the period of travelling is mandatory. Details of your travel health insurance must be provided to EDIT upon arrival. EDIT advises participants to purchase their own travel insurance regarding cancellations, loss of baggage, etc.
5. *Tickets* - EDIT will only refund (approved) flight tickets at the level of economy class non-refundable fares (apex<sup>2</sup>). If this is not available, for instance, because a weekend

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<sup>1</sup> Adapted from the GBIF travel guidelines

<sup>2</sup> APEX= Advance Purchase EXcursion. This is the standard discount ticket available from airlines and most regular travel agents. Depending on the airline, these tickets require a seven to thirty day advance purchase, a minimum stay of usually seven days, and a maximum stay of thirty or sixty days, sometimes longer. Round trip

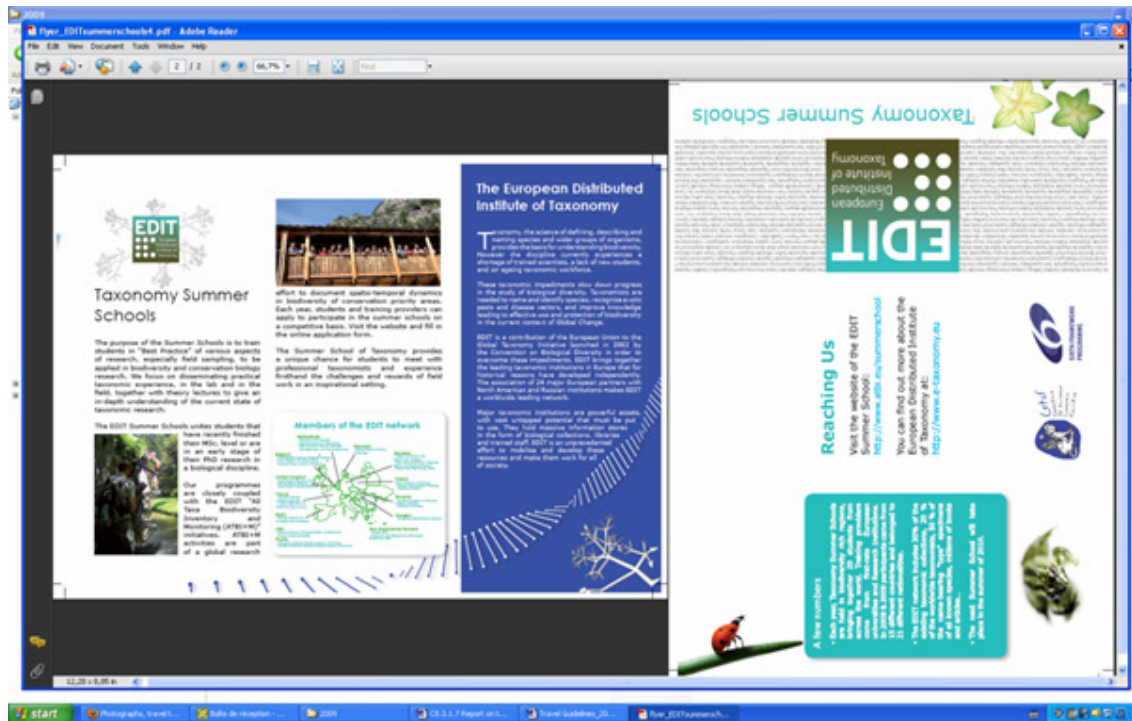
stay is not possible, cross-apex or similar should be considered. If more expensive tickets are used, the participant may receive only a partial refund. Flight tickets should be booked within 3 weeks after receiving this travel guideline. In case of rail travel, most economical fares must be used.

6. *Penalties for late booking* – EDIT will reimburse all flight costs for approved flights booked within 3 weeks after receiving this travel guideline (date of email as reference); for flights booked later than 3 weeks after receiving this travel guideline, EDIT may reimburse a maximum of 400 €.
7. *Schedule changes* - EDIT does not reimburse extra costs due to subsequent flight schedule changes on behalf of the participant.
8. *Cancellation* - If a participant has ordered a ticket but later wishes to cancel participation in the Summer School, EDIT will not refund the tickets. Only in the case of documented illness (i.e. certified by a physician) that prevents participation, will EDIT refund the cost of the ticket.
9. *General* - Reimbursement for travel should be claimed within 45 days after returning from the EDIT event. The following items must be attached to the EDIT reimbursement form: a) Stub of the original flight ticket, b) stubs of boarding passes.
10. *Exceptional procedures* - If the home organization/university of the participant has paid for the travel expenses, and not the participant himself/herself personally, please contact EDIT for procedures on reimbursement.
11. *Exceptional procedures* - In exceptional cases, if a participant is unable to pre-pay the costs, EDIT may issue flight tickets and hand over the per diem at the event. In this case, the participant should contact EDIT at [kim.jacobsen@africamuseum.be](mailto:kim.jacobsen@africamuseum.be) to request this pre-payment within 3 weeks after receiving this travel guideline, and provide adequate justification.

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is required, and fees are usually charged for date changes or cancellation (source=  
<http://www.artoftravel.com/04cheapflights.htm>)

A2. Promotional flyer and A3 poster



## A3. List of participants

	<b>Name (Student)</b>	<b>University/Institute</b>	<b>Nationality</b>	<b>Gender</b>
1	Susana Arias Guerrero	NHN, Leiden	Spanish	Female
2	Hanna Babik	Museum and Institute of Zoology, Polish academy of sciences; Warsaw University of Life Sciences, Poland	Polish	Female
3	Fabio Cianferoni	University of Florence, Italy	Italian	Male
4	Julia Fält	University of Türku, Finland	Finnish	Female
5	Irene Giordani	Albert-Ludwigs-Universität Freiburg, Germany	Italian	Female
6	Elena Guzeeva	University of Ghent, Belgium	Russian	Female
7	Christoph Joachim	SMNS, Germany	German	Male
8	Katy Jones	Edinburgh University, Royal Botanic Gardens, UK	British	Female
9	Marcin Kaminski	Museum and Institute of Zoology Polish Academy of Sciences, Poland	Polish	Male
10	Britta Kuempers	Edinburgh University, Royal Botanic Gardens, UK	German	Female
11	Daniel Kazimir Kurzeluk	University of Bucharest, Romania	Romanian	Male
12	Pavel Matos Maravi	University of Türku, Finland	Peruvian	Male
13	Thomas North	University of Edinburgh/Royal Botanic Gardens Edinburgh, UK	Australian	Male
14	Katalin Pap	University of Pannonia, Hungary	Hungarian	Female
15	Pamela Puppo Balarezo	University of Porto, Portugal	Peruvian	Female
16	Kalliopi Sigala	University of Athens, Greece	Greek	Female
17	Nina Wauters	Université Libre de Bruxelles, Belgium	Belgian	Female
18	Martin Weiszenstein	Palacky University, Czech Republic	Czech republic	Male
19	Jennifer Welsh	Galway Mayo Institute of Technology, Ireland	British	Female
20	Dragana Zec	University of Novi Sad, Serbia	Serbian	Female
	<b>Name (Teacher)</b>	<b>Organization/University/Institute, Country</b>	<b>Type</b>	<b>Gender</b>
1	Bartolozzi, Luca	Museum of Natural History of the University of Florence, Italy	Field/Classroom	Male
2	Cael, Garin	Royal Museum for Central Africa, Belgium	Classroom	Male
3	Cooleman, Stijn	Royal Museum for Central Africa, Belgium	Field/Classroom	Male
4	Delgado, Claudia	CIMAR/CIIMAR – Centre of Marine and Environmental Research, Portugal	Classroom	Female
5	Degma, Peter	Comenius University, Slovakia	Field/Classroom	Male
6	Demanooff, Vanessa	Museum national d'Histoire naturelle, France	Classroom	Female
7	Jacobsen, Kim	Royal Museum for Central Africa, Belgium	Staff/organisation	Female
8	Leccia, Marie-France	Parc national du Mercantour, FRANCE	Classroom	Female
9	Marcello, Stefano	University of Trieste, Dept. of Life Sciences, Italy	Classroom	Male
10	Meganck, Bart	Independent - Ni Dieu ni Maître ;), Belgium	Field/Classroom	Male
11	Pombo, Doris	University of Madeira, Portugal	Field/Classroom	Female
12	Prud'homme van Reine, Willem	Netherlands Centre for Biodiversity Naturalis (section NHN), Leiden, The Netherlands (also: Leiden University) Retired., The Netherlands	Field/Classroom	Male
13	Russo, Danilo	Laboratorio di Ecologia Applicata, Dipartimento Ar.Bo.Pa.Ve., Facoltà di Agraria, Università degli Studi di Napoli Federico II, Italy	Field/Classroom	Male
14	Searle, Rosalind	Open University, United Kingdom	Field/Classroom	Female
15	Teixeira, Dinarte	Direcção Regional do Ambiente (Regional Environmental Department of Madeira Government) , Portugal	Field/Classroom	Male
16	Valdecasas, Antonio	Museo Nacional de Ciencias Naturales, CSIC, Spain	Field/Classroom	Male
17	Vitek, Ernst	Natural History Museum Vienna, Austria	Field/Classroom	Male

## A4. Inventory of equipment

Inventory of Equipment of the EDIT Summer School							
Type	Brand and Reference	Serial number	Weight (kg)	Qty	Purchase year	Purchase price excl VAT reductions and recupel	Missing? Comments
Microscope	Leica ES2 with 10x eyepieces	5489061	5,13	1	2008	541	
Microscope	Leica ES2 with 10x eyepieces	5489005	5,13	1	2008	541	
Microscope	Leica EZ4 Without eyepieces	5541750	4,95	1	2008	1126	
Microscope	Leica EZ4 Without eyepieces	5541732	4,95	1	2008	1126	
Microscope	Leica EZ4 Without eyepieces	5541757	4,95	1	2008	1126	
Microscope	Eyepiece 10X/20 adjustable E Series	na	0,54	6	2008	504	
Microscope	Eyepiece 20X/12 adjustable S-A. E-Series	na	0,36	6	2008	1020	
GPS	Garmin Etrex Legend HCx	16C108616		1	2008	137,46	
GPS	Garmin Etrex Legend HCx	16C108617		1	2008	137,46	
GPS	Garmin Etrex Legend HCx	16C108618		1	2008	137,46	
GPS	Garmin Etrex Legend HCx	16C108619		1	2008	137,46	
GPS	Garmin Etrex Legend HCx	16C108620		1	2008	137,46	
GPS	Garmin Etrex Legend HCx	16C108621		1	2008	137,46	
Miscellaneous	Kit Basic Care (A.S. Adventure)	na		1	2008	12,5	
Miscellaneous	Rechargable batteries			4	2008	12,88	
Miscellaneous	Powerbank rapid (battery recharger)			1	2008	33,9	
Miscellaneous	Powerbank recycko (battery recharger)			1	2008	24,9	
Entomology	25m electrical cable			2	2008	24,5	
Miscellaneous	Extension cord (Blocparab3x16A)			2	2008	34,98	
Entomology	Light fitting			1	2008	1,49	
Entomology	Light fitting E27 (glad fitting)			1	2008	1,69	

Entomology	Light fitting E27 (halfdraafit)			2	2008	3,98	
Entomology	Lamp holder E27 white			1	2008	1,79	
Entomology	Energy saving light bulbs Softone 20			2	2008	17,98	
Entomology	Vynckier platte stekkers			2	2008	3,99	
Lab	Art 11,290 Coverslips 18x18 per 100			6	2008	9,84	
Lab	Art 12,280 Slides per 50			6	2008	11,34	
Entomology	Art 60,601 Beetle net round model			2	2008	43,7	
Entomology	Art 62,011 Pooter large model			4	2008	40,16	one is broken
Printed Material	Syllabus			45	2008	522	Distributed to participants
Microscope	All-in portable microscope			11	2008	1980	
DELL Laptop	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: 994YT3J		1	2008	528	
DELL Laptop	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: 294YT3J		1	2008	528	
DELL Laptop	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: C94YT3J		1	2008	528	
DELL Laptop	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: 194YT3J		1	2008	528	
DELL Laptop + USBStick	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: B94YT3J		1	2008	544	
DELL Laptop + USBStick	Latitude D830 N-Series: Intel Core 2 Duo T7250 (2.0GHz, 800MHz, 2MB) with Intel GMA	service tag: 894YT3J		1	2008	544	
IT equipment	DELL M209X Micro Portable Projector - European	REF/ 210-20644		1	2008	769,96	
IT equipment	Mice: Dell Optical USB (5 buttons scroll) Black Premium Vista Mouse	REF/ 570-10357		6	2008	30	
Entomology	Plastic pots (white pans)			33	2008	donated by RBINS	
Printed Material	EU documentation			na	2008	donated by EU documentation centres	
Entomology	Insect Guides			3	2008	81,11	
Miscellaneous	EDIT Merchandise			na	2008	donated by WP1 - MNHN	
Entomology	Larger Plastic pots with lid			4	2008	donated by RBINS	

Entomology	Smaller plastic pots with lid			21	2008	donated by RBINS	
Lab	Plastic pipettes			na	2008	donated by RMCA	
Botany	50m cord (orange)			na	2008	8,1	
Miscellaneous	Adaptors (Italian socket/International socket)			1/5	2008	44,49	
Field	hand lens (handheld magnifyer lenses)			5	2009		
Lab	reagent Congo red				2009	réactif de Melzer, rouge Congo ammoniacal, immersion oil. <a href="http://www.champignons-passion.be/main.htm">http://www.champignons-passion.be/main.htm</a>	
Lab	reagent Melzer				2009		
Printed Material	book - Hansen L. & Knudsen H. (2000) Nordic Macromycetes, vol. 1 - Ascomycetes. Copenhagen, Nordsvamp, 309 p. ISBN 87-983961-2-9				2009	(200-250 euro for all 3 books together)	
Printed Material	book - Corfixen P. et al. (1997) Nordic Macromycetes, vol. 3 - Heterobasidioid, Aphylloporoid and Gasteromycetes Basidiomycetes. Copenhagen, Nordsvamp, 444 p. ISBN 87-983961-10				2009	(200-250 euro for all 3 books together)	
Printed Material	book - Knudsen et al. (2008) Funga nordica : agaricoid, boletoid and cyphelloid genera. Copenhagen, Nordsvamp, 965 p. + 1 DVD with MycoKey 3.1. ISBN 9788798396130				2009	(200-250 euro for all 3 books together)	
staff	basic first aid kit (field)			4	2009		
all	needles for mounting insects				2009		
Lab	Insect pins (100) - Sphinx		Size 2	3	2010	8.82 euro	
Lab	Japan net – white model			3	2010	55.35 euro	
lab	Insect collections boxes (museum quality)				2010	268.50 euro	Donated to the entomology department at the UMa at the end of the Summer School
<b>Total</b>						<b>14251.36 euro</b>	

**A5. Photographs of the EDIT Summer School 2010**

<http://www.atbi.eu/summerschool/node/85>

**A6. Confidential: Report of student feedback to individual courses**

This report is confidential between the organizers and the lecturers – not included in this general report.

## A7. Detailed daily organization of the Third EDIT Summer School 2010 (Mission report)

### Mission Report

#### EDIT WP8

#### EDIT Summer School 2010

17/07/2010 – 01/08/2010

##### Thursday 15/07/2010:

12h20: Departure from Brussels to Lisbon

15h20: Departure from Lisbon to Funchal

17h10: Arrival at Funchal airport, Madeira, Portugal

##### Friday 16/07/2010:

- Meeting with Enio Freitas at the University of Madeira to discuss last-minute organisation details for the EDIT Summer School 2010.
- Inspection of the materials that were sent from Belgium (Fedex shipments and other documents which had been sent to Madeira).
- For each participant a canvas bag was prepared to give to them upon their arrival
- The “*Parque Natural da Madeira*” provided extensive materials, as we requested: For each participant a canvas bag including:
  - o a list of species found on Madeira (hardcopy book of 438p)
  - o an information brochure on Ponta de São Lourenço, Desertas Island Nature Reserve, Reserva Natural da Rocha do Navio, Parque Natural da Madeira, the Laurel Forest, The marine reserve of Porto Santo, The marine reserve of Garajau, Selvagens islands Nature Reserve, The Centro de Informação do Serviço do Parque Natural da Madeira (CISPNM), Invasive plants, Madeira’s petrel, the Monk Seal, a more detailed brochure on Zino’s Petrel, a more detailed brochure on the Parque Natural da Madeira
  - o a DVD on research carried out on Bugio’s Petrel
  - o a list of Birds of the archipelago of Madeira (book, 110p)
- Each canvas bag further contained, from the *Regional Tourism board of Madeira*:
  - o a map of the island and of Funchal
  - o an information brochure on Madeira and Porto Santo
- Each canvas bag further contained, from *EDIT*:
  - o The most recent Newsletter (#20)
  - o An information brochure on EDIT and on the Gender Action Plan Mentoring program
- Each canvas bag further contained, from the *EU*:
  - o A guide to the 7<sup>th</sup> Framework program for research (FP7 in Brief)
  - o A brochure about EU careers – the selection procedure, EU careers – face a bigger challenge
  - o A magazine entitled RTD info – Magazine on European Research
  - o A magazine entitled FP7 tomorrow’s answers start today
- Each canvas bag further contained, from the *EU project STERNA* (a digital library & web-resource for bird lovers and wildlife enthusiasts) a brochure and a flyer
- The equipment for field work and lab work was inspected to make sure that everything was available
- For the meals, the university provided meal tickets

- Further organization of transport and food during weekends (when the university canteen and residency services are closed) were discussed.
- A Hyundai Atos was given in loan to Kim Jacobsen by the University of Madeira

#### Saturday 17/07/2010 – Official start of the EDIT Summer School 2010

- Participants arrived throughout the day. They were welcomed by Bart Meganck and myself and given the introductory package.

#### Sunday 18/07/2010

- The first true day of the Summer School was held at the University of Madeira. As the public bus service does not run on Sundays, we negotiated to charter a public bus to transport teachers and students to the campus at Penteadá and back for 110 euro.
- Classes were taught on the following topics: An introduction to Madeira, beetles, Tardigrada, GIS and GPS.
- We self-organized breakfast at the residency and lunch and coffee breaks at the university campus, as the university canteens are not open on Sunday. Dinner was at restaurant Muralha, close to the residency.

#### Monday 19/07/2010

- A second day of theory classes were taught at the University of Madeira (Penteadá campus).
- Classes taught were: plants (herbarium collections), leafhoppers, freshwater sampling, all-taxa biodiversity inventories and monitoring, GIS practical exercises.

*For field work and lab work, the students were divided into 6 groups. On Tuesday and Wednesday, groups 1, 2 & 3 worked with Peter Degma, Antonio Valdecasas and Luca Bartolozzi and groups 4, 5 & 6 worked with Ernst Vitek. On Thursday and Friday, groups 1, 2 & 3 worked with Ernst Vitek and groups 4, 5 & 6 worked with Peter Degma, Antonio Valdecasas and Luca Bartolozzi. This allowed the groups to remain relatively small in the field and lab (for the zoology classes), whereas the field work on botany had a larger group.*

#### Tuesday 20/07/2010

- The first field work day begun after a morning class at the university on digital ID-keys and the project Key to Nature. The field work was carried out at Ribeiro Frio.

#### Wednesday 21/07/2010

- The samples collected on Tuesday were analyzed in the lab by the students and training providers after a morning class on the management and care of museum collections.

#### Thursday 22/07/2010

- A second day of field work was carried out at Chão da Ribeira (Seixal).
- The botanist Dr Susana Fontinha of the University of Madeira also accompanied the group.

#### Friday 23/07/2010

- The samples collected on Thursday were analyzed by the students and training providers.

#### Saturday 24/07/2010

- All students and teachers were given a free day to do as they wished. No breakfast or lunch was organized. Dinner was at Grand Café Columbus at 19h30, a restaurant next to the Téléférico.

#### Sunday 25/07/2010

- Sunday was an easy day. Breakfast was self-organized at the residency.
- At 10h30 the students and training providers gathered at the base of the Téléférico (cable car) in Funchal. A group price was given to mount to Monte and further on (with a second cable car) to the Botanical gardens. Free entrance for the Botanical garden was granted for the entire group. We had lunch first at the Botanical gardens snack bar and then students and training providers were left to visit the botanical garden and natural history museum (the natural history museum in downtown Funchal was not visited, as we arrived late at the gardens).
- Dinner was at restaurant Romano at 18h30, close to the residency.

*During field work and labs, the students were split into 4 groups. Group 1 & 2 worked with Willem Prud'homme van Reine and Rosalind Searle on botany on Tuesday, whereas groups 3 & 4 worked with Dora Pombo and Dinarte Teixeira on zoology. During the field work on Thursday the groups rotated and on Friday lab classes were held for all groups together (for land snails, leafhoppers and terrestrial botany, whereas the macroalgae lab work had been held on the day of sampling)*

- Night excursions: At 20h30 half of the students (groups 1 & 2) left to visit Zino's Petrel colony (accompanied by Stijn Cooleman). The other students (groups 3 & 4) left at 20h30 to carry out field work on bats (accompanied by Danilo Russo).

#### Monday 26/07/2010

- This was a day of theory classes at the University of Madeira campus. Classes taught were: bats, macroalgae, plants (ecology and biodiversity), birds, land snails.
- The Hyundai Atos given in loan by the University of Madeira broke down (problems with the engine suspension).

#### Tuesday 27/07/2010

- Field work was carried out at Ponta da São Lourenço.
- Half of the students (group 1 & 2) carried out botanical field work (macroalgae and terrestrial plants). This group left at 6h30 and returned to Funchal after lunch to continue work on macroalgae at the Marine Biology Research station. The early start was due to tide tables (low tide is necessary when sampling macroalgae).
- The other group of students (group 3 & 4) left later, at 8h45 to Ponta da São Lourenço (because insects are not active before 9h00).
- Night excursions: At 17h45, groups 3 & 4 went on a boat trip to look at pelagic sea birds (accompanied by Stijn Cooleman). At 20h30, groups 1 & 2 left with Danilo Russo to carry out bat field work (until midnight).

#### Wednesday 28/07/2010

- All students followed bat lab work (acoustics analysis of recordings made during the night excursions) during the morning at the University of Madeira.
- In the afternoon they were free to use the computers in the PC-class or to return to the residency. This period was useful for them to prepare their student presentations.
- A replacement car was rented from 08h30 with Amigos do Auto Rental Company.

- Night excursions: At 17h30 groups 1 & 2 went on a boat trip to look at pelagic sea birds (accompanied by Stijn Cooleman).

#### Thursday 29/07/2010

- Groups 3 & 4 carried out botanical field work and groups 1 & 2 carried out zoological field work at Seixal, Paul da Serra and Fañal. All students arrived by 9h00 at Seixal (low tide). The botany class returned to Funchal in the late afternoon and continued their lab work on macroalgae at the Marine Biology Research Station.
- Night excursions: At 20h30 half of the students (groups 3 & 4) left to visit Zino's Petrel colony (accompanied by Stijn Cooleman).

#### Friday 30/07/2010

- All students followed lab work on land snails, leafhoppers and plants (ecology and biodiversity). For the zoology lab work the students were divided into two groups. These 2 groups rotated, in order to make smaller classes. The botany work involved some statistic analysis and was carried out with all students together.

#### Saturday 31/07/2010

- In the morning the students had one last class, on EU funding opportunities. After a quick coffee break (self-organized), the students started their student presentations. Lunch was also self-organized, as the university canteen had closed for summer break.
- Around 15h00 everyone returned to downtown Funchal.
- The equipment to send back to Belgium was prepared and the labs and classrooms were cleared out.
- The final dinner was at 19h30 at Restaurant A Tartaruga close by the residency.

#### Sunday 01/08/2010 – Official end of the EDIT Summer School 2010

- All participants left during the day, except Bart Meganck and Kim Jacobsen.
- The car was returned to the rental company at 08h30.

#### Monday 02/08/2010

10h25: Departure from Funchal to Lisbon

14h50: Departure from Lisbon to Brussels

18h30: Arrival at Brussels airport, Belgium

### A8. Certificate of Attendance

A certificate of attendance was sent to each student and training provider who participated in the EDIT Summer School 2010.



### Certificate of Attendance

This is to certify that .....  
participated in the EDIT Summer School 2010

**"From field to Web: Modern Taxonomy and Field Work"**  
which took place on the Island of Madeira, Portugal  
from July 17th – August 1st 2010

Tervuren, 2010

Dr Guido Gryseels  
General director RMCA

Dr. Patricia Mergen  
RMCA project manager

Kim Jacobsen  
Summer School Team