TRAINING AND E-LEARNING (Te-L)
Working Group Charta

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Edited by Iasmi Stathi (NHMC-UoC) (leader),
based on the suggestions of the Te-L WG's members

1. Purpose and Vision of the Working Group

The CETAF Training and e-Learning Working Group (Te-L WG) serves as a "think tank" on taxonomic training. Its vision is to build and sustain capacity and expertise in Taxonomy and Systematics as foundational disciplines for our understanding Biodiversity across Europe, through exchanging experiences and good practices in taxonomy-related topics, and to facilitate a suitable learning environment for students, professionals and non-professionals. Since many experts in taxonomy are gathered under the umbrella of CETAF, this community is in a unique position to increase all this available knowledge and transfer it to the new generation of taxonomists and other stakeholders (policy makers, educators, public, etc), establishing CETAF community as a global key player in capacity building in Taxonomy and Systematics.

The Te-L WG aims to address several challenges, creating a major impact for the community by the community. Some of these challenges include lack of a common system of training certificates and recognition at EU level for the educational and training activities of CETAF members; scattered training opportunities; lack of recognition for external training by universities; students are not informed about all the opportunities available to them, etc..

2. Strategic Relevance to CETAF

CETAF's strategic priorities include, among others, expert collaboration as well as sharing and transfer of knowledge in Taxonomy and Systematics among its member institutions, enhancing the accessibility, use, and impact of natural science collections and aiming at a sustainable future of Geodiversity and Biodiversity research for nature and society.

In the frames of Te-L WG, this strategy is supported through the knowledge transfer mechanism and the collaboration of the expert-trainers' network that exists in CETAF members.

3. Main Themes and Objectives

- **MoU on training among CETAF members and/or Academia:** Explore possible connections between CETAF members and Academia, through formal, non-formal, and informal learning methodologies.
- **European Certification on training:** Investigate the possibilities for developing training certificates and recognition at EU level for the educational and training activities of CETAF members.
- **New career opportunities for taxonomists:** Placements for taxonomists in e.g., industry and business sectors for on-the-job training in applied fields.

- **Facilitated and enhanced cooperation of expert trainers in the CETAF community and beyond.**
- **Collaboration among CETAF members**, exploring the possibility of joint exhibitions, projects (collaboration with EPAG WG) and common initiatives, regarding training.
- **Establishment of a Blended Learning Environment** in Integrative Taxonomy and in Preserved and Living Scientific Collections (E-learning and Face-to-Face).
- **Support of the CETAF-DEST** infrastructure, e.g. by proposing new relevant courses.

4. Work Plan and Deliverables

- **Exploring connections among CETAF members and Academia**
- **Investigating the possibilities for training certificates and recognition at EU level**
- **Observing new career opportunities for taxonomists**
- **Facilitating and enhancing cooperation of expert trainers in the CETAF community and beyond.**
- **Promoting collaboration among CETAF members**, exploring the possibility of joint exhibitions, projects (collaboration with EPAG WG) and common initiatives regarding training.
- **Establishing a Blended Learning Environment** in Integrative Taxonomy and in Preserved and Living Scientific Collections (E-learning and Face-to-Face).
- **Supporting the CETAF-DEST infrastructure** by proposing new relevant courses.

5. Evaluation and Success Metrics

- Define the achievable goals in each physical meeting
- Track progress in regular meetings: quarterly meetings, including one physical in the frames of CETAF's spring meeting
- Reporting how many of the above tasks/milestones/outputs will be fulfilled each year (at the spring CETAF meeting).

6. Timeline and Lifetime
The T-eL was reformed during CETAF 56 and will continuously develop the training landscape on taxonomy in Europe.

Every year, in March, an internal online meeting will be organized prior to the spring physical meeting, to check the progress, and prepare for the evaluation and the reporting for the previous year.

7. Roles and Responsibilities

To address the challenges of taxonomic capacity building described previously, the members have been allocated to the following topics relevant to the Te-L WG's objectives:

TOPIC	Te-L MEMBERS
1. **MoU on training among CETAF members and/or Academia:** Explore possible connection between CETAF members and Academia, through formal, non-formal and informal learning methodologies.	NHMC-UoC NTNU SMNS IBOT-CAS
2. **European Certification on training:** Investigate the possibilities for developing training certificates and recognition at EU level for the educational and training activities of CETAF members.	NHMC-UoC NTNU SMNS Botanic Garden Coimbra IBOT-CAS LUOMUS
3. **New career opportunities for taxonomists:** Placements for taxonomists in e.g., industry and business sectors for on-the-job training in applied fields.	NHMC-UoC SMNS SMNS
4. **Facilitated and enhanced cooperation of expert trainers in the CETAF community and beyond.**	NHMC-UoC Botanic Garden Coimbra RBINS RMCA
5. **Collaboration among CETAF members**, exploring the possibility of joint exhibitions, projects (collaboration with EPAG WG) and common initiatives regarding training.	NHMC-UoC RBINS CETAF
6. **Establishment of a Blended Learning Environment** in Integrative Taxonomy and in Preserved and Living Scientific Collections (E-learning and Face-to-Face).	NHMC-UoC
7. **Support the CETAF-DEST infrastructure** by proposing new relevant courses.	NHMC-UoC

8. Governance and Decision-Making Structure

Following democratic procedures, through organizing meetings and sharing all relevant issues with every member via e-mail. Decisions will be taken by consensus. Only in the exceptional cases of non-agreement, will a vote by a simple majority be envisaged.

9. Communication and Collaboration Tools

- Online meetings will be scheduled at Zoom.
- Google drive will be used for sharing documents.
- E-mailing list for information exchange.

10. Stakeholder Engagement

The Te-L WG will share the charta with the other WGs and CETAF members and ask for synergies. For example, in the past, there were synergies with the Digitization and the Collections WGs. These synergies would be established through sharing/creating courses, webinars, moocs, and other knowledge transfer mechanisms, as well as facilitating the collaboration of the skilled taxonomists-trainers within the CETAF members. Maybe , one member of each CETAF WG could join our group, or participate in our meetings, to get updated and explore possibilities of closer cooperation among the WGs.

External partners could also be involved who provide learning material and expert trainers. Possible external partners could be the following: GBIF, IUCN, WWF, Pollinators' Academy, WiNoDa, Plazi, ForBio, Physalia (NOT FOR BUSINESS but with an advisory role), TDWG (data standards), SPNHC (Collections), EU RIs trainings (DiSSCo, ELIXIR, LTER …), EOSC training, IBOL Europe training WG, etc.

11. Resource Planning – Human, Technical, Financial

- **Time:** The directors should allocate some time to the people responsible for the WG's work within their working time and efforts.
- **Tools:** They should be provided by the institutes.
- **Funding:** Some funding might be necessary for the physical meetings of all the WG's members.

12. Appendices

Members of the Te-L WG are the following:

1. Natural History Museum of Crete-University of Crete (NHMC-UoC) (Crete, Greece) (Leader)
2. Museo Nacional de Ciencias Naturales (MNCN-CSIC) (Madrid, Spain)
3. Finnish Museum of Natural History (LUOMUS) (Helsinki, Finland)
4. State Museum of Natural History (SMNS) (Stuttgart, Germany)
5. Institute of Botany of the Czech Academy of Sciences (IBOT CAS) (CzechRepublic)
6. Muséum National d'Histoire Naturelle (MNHN) (Paris, France)
7. Royal Belgian Institute of Natural Sciences (RBINS) (Brussels, Belgium)
8. Natur Musée - Musée national d'histoire naturelle (MNHNL) (Luxembourg)
9. Natural History Museum of Denmark – University of Copenhagen (Copenhagen, Denmark)
10. Hungarian Natural History Museum (HMNH) (Budapest, Hungary)
11. Royal Museum for Central Africa (RMCA) (Tervuren, Belgium)
12. Meise Botanical Garden (MeiseBG) (Meise, Belgium)
13. Museum für Naturkunde (MFN), WiNoDa Knowledge Lab (Berlin, Germany)
14. Natural History Museum-University of Oslo (Oslo, Norway)
15. Muséum d'histoire naturelle (MHN) GENEVE (Geneve, Switzerland)
16. University of Coimbra, Botanic Garden (Portugal)
17. Staatliches Museum für Naturkunde Karlsruhe (Germany)
18. Norwegian University of Science and Technology University Museum (NTNU) (Trondheim, Norway)