



Minutes

Exploring and documenting diversity in nature

CETAF A.I.S.B.L MINUTES REFERENCE

CETAF 47th Governing Board Meeting, 14th - 15th October 2020

Virtual Meeting via Zoom

Virtual Meeting Host

Musée National d'Histoire Naturelle,
Paris, FR (MNHN)



Michel Guiraud - Director of Collections

Notes: The course of the meeting was according to the approved agenda.

Annexes: Annexes to the minutes - (numbered 1 - 15)

Zoom Chat: Is provided collectively as Annex 15 to this document.

Authors: Laura Tilley (Project Officer) and Ana Casino (Executive Director)

Approval: Version approved by the CETAF Executive Committee – 14 December 2020

Day 1: Wednesday 14th October (10:00 - 15:30 CEST)

CETAF 47th Governing Board Meeting (CETAF47)

OFFICIAL OPENING OF THE 47th CETAF GENERAL MEETING

The meeting was officially opened by *Leif Schulman* (CETAF Chair) (Finnish Museum of Natural History-LUOMUS, Helsinki) (*LS-Chair*).

LS-Chair notified that this will be a historical meeting, since it is the first CETAF General Meeting that has taken place virtually which presents new challenges in its organisation. He also acknowledged that it has been a tough year for everyone due to the COVID pandemic on many levels in work and everyday life. He mentioned how unfortunate it was that CETAF members could not meet physically at MNHN Paris, but thanked the host for arrangements that made it possible to meet virtually.

WELCOME FROM MNHN PARIS AND PRESENTATION OF BIOMIMICRY PROJECT - MICHEL GUIRAUD (MNHN)

M. Guiraud (Director of Collections, MNHN Paris) welcomed participants (*MG-FR*).

Annabelle Aish (Project Lead of the Bioinspire-Muséum at MNHN Paris) gave a brief and interesting presentation on the Biosphere Museum and the concept of Bioinspiration, which encompasses innovative developments directly and indirectly using nature and natural history collections, across numerous sectors (Science, Art, Engineering). For something to be the source of Bioinspiration it should have a positive impact on human beings.

CETAF A.I.S.B.L COMPULSORY ITEMS

1. AGREEMENTS OF CURRENT MEETING (VOTING ITEM) (Annex 1)

Ana Casino (CETAF Executive Director) (*AC-CETAF*) indicated that due to the existing Belgian legislation for AISBLs (as CETAF) Statutes need to be accommodated and revised. Moreover, the current Statutes do not envisage the possibility of having virtual General Meetings.

**The variation in final voting numbers for each voting item was due the fluctuations of eligible voting members present in the meeting, at the time of each vote.*

To overcome such a loophole, it was proposed that the decisions taken, and agreements reached by the General Meeting will remain valid, although they will be kept on hold until the new CETAF Statutes are in place, that will allow online meetings, and by when the decisions will become official.

***Final voting results (30):** Yes = 30, No = 0, Abstention = 0

The procedure in regard to decisions taken at CETAF47 was approved.

2. APPROVAL OF AGENDA FOR CETAF47 (VOTING ITEM)

LS-Chair indicated a slight amendment to the agenda (**Annex 2**). Item 22 is withdrawn from this Agenda since it will not be presented because it was not prepared to the level needed.

Final voting results (31): Yes=31, No=0, Abstention=0. The Agenda for CETAF47 was approved.

3. APPROVAL OF THE RECORDS OF THE PREVIOUS MEETING (CETAF46, NATURALIS BIODIVERSITY CENTER, LEIDEN, NETHERLANDS) (VOTING ITEM) (Annex 3)

LS-Chair requested approval for the CETAF46 Minutes. **Final voting results (29):** Yes=29, No=0, Abstention= 0. The Minutes of CETAF46 were approved.

4. AMENDMENTS TO CETAF STATUTES AND FOR CETAF48 GENERAL MEETING (VOTING ITEM) (Annex 4)

AC-CETAF presented the needed modifications of the CETAF Statutes under the new Belgium law on AISBL's. Under the current statutes the general meetings cannot be run virtually, and as per Item 1 above, an agreement has been reached by the CETAF 47 governing body to keep decisions on hold until the General Meeting is able to meet as per the applicable Statutes. . Thus it is proposed that a physical CETAF meeting (CETAF48) should take place in Brussels in the 1st half of February 2021 at the Notary office so that changes to the Statutes can be approved. The modifications to the current Statues will include adaptation to current Belgian law, agreements previously reached by the Governing Body (on April 25th 2018 in CETAF44) and possibility to run meetings virtually. If at the CETAF48 physical meeting the quorum is not reached (Art 14.3: 2/3 of members in good standing) then a second general meeting will take place 15 days later, with as many members present (e.g. just the 3 Belgium members), who will take the decisions on behalf of the entire membership.

Prior agreement on the text will have been sought from all members ($\frac{2}{3}$ majority, Art 14.3). Once published in the *Moniteur Belge*, decisions taken in both CETAF47 and CETAF48, including

amendments to the Statutes, will become official and enforceable. Proposed agenda for CETAF 48:

- 1) Approval of the Agenda of CETAF48
- 2) Amendment of the CETAF Statutes, with the addition of changes agreed by the CETAF Governing body
- 3) Ratification of the agreements reached at CETAF47

Final voting results:

a. Amendment to the CETAF Statutes

Approved. Results (30): Yes=30, No=0, Abstention=0

b. Ratification of agreements reached during CETAF47

Approved. Results (30): Yes=29, No=0, Abstention = 1

CETAF BUSINESS YEAR

5. CETAF ACCOUNTS 2019 AND AUDIT REPORT (VOTING ITEM) (Annex 5a and 5b)

A presentation of CETAF annual accounts of 2019 was made by *Erik Smets* (CETAF Treasurer) (Naturalis Biodiversity Center, Leiden, NL) (*ES-Treasurer*). An overview was provided of the current and deposit accounts, the total for both on the 1/01/2019 was 260,600.91 €. For 2019, the total income including these amounts was 513,284.38 €. Regarding income it was noted that we had less income from projects than expected, although we had more incomes under the salaries that were reimbursed from projects.

The expenses total for 2019 reached 222,748.75 €. There were some differences compared to the approved budget of 2019. For instance, less money was spent on legal issues, salaries, office infrastructure (because that was dealt with the year before), general cost for the General Secretariat and the Executive Committee. On the other hand, more money was spent on the traveling costs for the Secretariat and promotional material. This means that the balance of the accounts in 2019 is 290,535.63 €. The balance of 2019 subtracted from the amounts already in the accounts of 2019 (260,600.91 €) leaves a net result for the year 2019 of 29,934.72 €. From this amount, a total of 29,830.99 € corresponds to items in the running accounts, while 103.73 € corresponds to interests accrued on the deposits account. This means that we started 2020 with a running account of 179,498.56 € and a deposit account of 111,037.07 €.

Information was shared about the 2019 financial Auditing Report that was received by the Executive Committee. The conclusion from the report is that all financial documents are in full

accordance with the bookkeeping and therefore the auditors (Eva Maria Natzer and Vanessa Demanoff) propose that the financial report can be put forward for approval at the CETAF47 Governing Board meeting

Final voting results (31): Yes=31, No=0, Abstention=0; The CETAF Annual Accounts for 2019 were approved.

6. FINANCIAL REPORT FROM THE FIRST THREE TRIMESTERS OF 2020

ES-Treasurer presented the Balance up to 30/09/2020, with a total Income of 414,394.12€. It was notified that to date only two membership fees have not been paid. Regarding income we have had more than expected from approved projects (payments from DiSSCo-related projects) at the start of the year.

For the reporting on expenses up to the 30/09/2020, there are some differences with regards to the expected Budget 2019, due to spending being less than that foreseen, because of the COVID crisis. Some important expenses to mention are that we have spent more than expected for CETAF web page development (e.g. we foresaw a cost of 8500€ but we have actually spent 10890€. However, less money has been spent on traveling costs (almost nothing) for the Secretariat and Executive Committee. Furthermore, there were no expenses for promotional materials and working groups. Therefore, this means that for the last 3 months, with an Income of 412,394.12€ and a total expense of 206,582.03€, the remaining balance available is 205,812.09€. This is considered more than sufficient for the remaining 3 months.

A very cautious financial forecast has been made for the end of the year, whereby we may have a surplus of at least 135,706.00 €. From this figure we would like to transfer 100,000.00 € to the deposit account while leaving the remaining amount in the running account. Expenses are foreseen for a total of 274,988.00 € and this would include expenses for the legal issues mentioned in previous items (e.g. Notary costs for amendment of the Statutes) and the completion of the CETAF website.

7. CETAF BUDGET FOR 2021 (VOTING ITEM) (Annex 6)

ES-Treasurer provided an overview of the expected budget for 2021. There is a balance between expenses and incomes. The total income for 2021 is 373,690.00 €. *ES-Treasurer* indicated the major differences between the Budget for 2021 with regards to previous year 2020. The major differences between the two is the +2,200.00 € for membership fee; this is due to changes to the status of NMS from associate member to full member plus new members (the DINAS consortium and the NHMUO, both from the UK). More income is expected from the

approved projects, and also higher reimbursement of salaries from these projects are foreseen. For the expenses, there are higher expenses for the CETAF core team salaries and the projects. It is foreseen that there will be less travel costs, promotional material and Executive Committee costs. It is foreseen that there will be more money for the working groups. The E-SCoRe award (2.500 €) has been added to the budget. Other expenses are not different from the previous proposal and remain at the same level as in 2020.

Final voting results (32): Yes=31, No=0, Abstention = 1. The CETAF Budget 2021 was approved.

Annotation to the Minutes¹

8. CETAF EC WORK PLAN AUTUMN 2020 - AUTUMN 2021

LS-Chair presented the Executive Committee (EC) plan for 2021. The EC has completed a framework plan 2020-2023 including ideas and proposals for activities. There will be most probably modifications derived mostly from changes in the operational landscape, and importantly because of the mid-term review of the CETAF strategy, which contains a lot of recommendations and actions for the overall framework plan.

Immediate priorities for 2021 have been divided into 3 task areas:

1) Administration as recurring tasks in regards, e.g. to the implementation of Statutes and Bylaws and previous decisions by the Governing Board (e.g. annual reports, budgeting and upcoming meetings, working group reports). The E-SCoRe award has also been added here since it will be reoccurring on a yearly basis. Whenever needed, the statutes and bylaws will be reviewed, as well as the membership and business models, to integrate more clarity on how small consortia can be formed and how membership fees are established. In addition, it has been highlighted the need to strengthen the EC's relationship with the CETAF working groups, helping them with outreach.

2) Operational tasks: Actions required as a response to the changes in CETAF's operational landscape.

¹ **Annotation to the Minutes:** Due to a presentation error in the document tabled at the meeting, the figures given for the New Membership fees and Net Balance for Approved projects for 2021, are to be corrected. The Budget 2021 remains unchanged for a total amount of 378,060.00€.

Modifications are as follows:

	Previous figure	Correct figure	Difference
New membership:	10,050.00€	5,800.00€	-4,250.00€
Net Balance Approved Projects:	100,100.00€	104,350.00€	+4,250.00€

3) Strategic tasks: Developing and strengthening CETAF's position and increasing its impact. This includes among others CETAF's role in the GTI, in which we can play an essential role especially in the missions about taxonomy, and progress and developments of our role in the CBD. Other initiatives have been identified for our positioning (e.g. EU Green Deal and the Global European Research Agenda). Also development of the CETAF's Scientific Research Agenda (for which the new Scientific Research Group will be activated).

Questions:

- *P. Mergen* (Royal Museum of Central Africa-RMCA Tervuren & Meise Botanic Garden-MBG, Meise) (*PM-BE*) mentioned that we should add EOSC (start in 2021) to the strategy since there is already a lot of involvement with member states and thus, it is important that the CETAF community is visible in this. *LS-Chair* answered that there will be more discussion about handling data coming up in the meeting.
- *MG-FR* asked for more information about the establishment of a strategic working group. *LS-Chair* answered there will be a presentation on the Science Research Group that will uptake certain tasks from the previous Strategy group.

CETAF CONSORTIUM

9. CETAF NEW MEMBERSHIP (VOTING ITEM)

9.1. DINAS CONSORTIUM (Annex 7)

Paul Smith (Oxford University Museum of Natural History, Oxford) (*PS-UK*) gave the talk on behalf of Jana Horik (National Museum of Wales). The presentation introduced DINAS as the consortium that represents collections across the UK and includes the following members:

- **National Museum of Wales:** Includes 8 sites, 7 museums across Wales which contain multidisciplinary collections. The Natural Science Collections (NSCs) are based in the National Museum Cardiff.
- **National Museums Liverpool:** Includes 8 sites across Merseyside, that are funded by the UK government. The Natural Science Collections mainly based at the World Museum.
- **National Museums of Northern Ireland:** Consists of 4 museums sites, the Ulster Museum Belfast contains the Natural Science Collections.
- **The Hunterian Museum, Glasgow:** this belongs to the University of Glasgow and is funded by the Scottish government. It has multiple sites, mostly on campus but some off-site storage.

- **Manchester Museum:** This is a part of the University of Manchester. It is funded by the university and the Arts Council England NPO, Research England as well as through other trusts, foundations and charitable donations.
- **British Geological Survey Repository, Keyworth Nottingham:** This contains some of the largest and most important geological collections.
- **Bristol Museum & Art Gallery:** Funded by the local authority (Bristol Council) as well as as provided by the Arts council England. The Natural Science Collections are mostly stored and exhibited at the museum, but some material is held at other sites.

There is a large diversity of collections across the UK, thus it is difficult to pick out a unique strength. Also research expertise is diverse. All these assets combined can be highly relevant to the community with which the consortium can share best practices. As an example, most museums included in DINAS have advanced digital assets despite its size.

Final voting results (32): Yes=31, No=0, Abstention=1. The Membership Application of the DINAS Consortium was approved.

9.2. Oxford University MNH (OUMNH) (Annex 8)

The presentation made by *PS-UK* introduced the background of the OUMNH including its history and the collections that it holds. The building was opened in 1860 and the collections are older than the museum, going back to the 1600s. Eventually they were donated to the University of Oxford in 1863. The building is of OUMNH. It has Victorian design that brings together medieval principles and new industrial techniques. The OUMNH has 5 strategic priorities that define the work that it undertakes and the way that it engages with audiences: Strategy 1, towards connecting the museum's collections with diverse audiences through innovative and creative engagement and programming, both physical and digital (priority given to the creation of a consortium for engagement). Strategy 2, to take a proactive and innovative role to inspire and support diverse new generations of scientists. Strategy 3, to ensure a continuum of engagement from early childhood through to mature adulthood and enable a rich and sustained lifelong relationship with the museum, its collections and the natural sciences. Strategy 4, to enable society to reflect and make decisions on issues relating to the natural world in an informed and evidence-led manner. Strategy 5, to support the mission of the University of Oxford and other higher education institutions in relation to research, to object-led learning and to public engagement with research. A description of the OUMNH in figures from 2018 - 2019 includes: 6.1 billion specimens, a high number of school visitors (42,313), and 6,232 objects sent on loan for research. The funding sources for the museum are 49% from universities, 20% from the government, 20% commercial, and 11% from external grants. They want to support early career researchers and postdoctoral fellows who are concentrated in

areas of evolutionary origin of animals, vertebrate palaeobiology, arthropod evolution, digital morphology, heritage, cultures and science. One of the Museum's main passions is to inspire engagement with the general public in terms of building best decision-making skills. They currently have a large sculpture of an *E.coli*, bringing together Art and Science as a way to engage. They aim to promote passion equity in science to maintain diversity throughout their science programme that embeds the different messages and aims to build confidence in science.

Final voting results (32): Yes = 31, No = 0, Abstention = 1. The Membership Application from the OUMNH was approved.

10. CETAF MEMBERSHIP UPGRADE (VOTING ITEM)

10.1 NATIONAL MUSEUM OF SCOTLAND (NMS) (Annex 9)

Nick Fraser (National Museums of Scotland-NMS, Edinburgh) (*NF-UK*) presented a brief introduction about NMS and its collections. It holds multidisciplinary collections (e.g. natural sciences, world cultures, science and technology, Scottish history, archaeology and art and design). The museum has a relatively short history, being established in 1985 by the National Heritage Scotland. It brings together two separate institutions: The National Museum of Antiquities of Scotland and The Royal Museum of Scotland. NMS currently occupies the building of The Royal Museum of Scotland, which was completed in 1866 and was originally inspired by London's crystal palace. Some examples of celebrated permanent displays of the NMS are "Dolly the Sheep" and "the Lewis ChessMen" which are 12th century chess pieces that are carved out of walrus tusks. Examples of temporary exhibitions include 'Fossil hunters' which is based on a museum research programme on the colonisation of land by vertebrates. Also, the 'Monkey business' exhibit. The origins of the natural science collections can be traced back to the acquisition in 1694 by the town colleague of Edinburgh. All the collections are housed in a separate facility in the north side of Edinburgh and are divided into 4 disciplines (Earth Systems, Palaeobiology, Vertebrate Biology and Invertebrate Biology). Staff conduct research across all these disciplines. Some of the main collection strengths include Earth Sciences (particularly Scottish Minerals) and Palaeozoic Fish, as well as collections from the North Atlantic and extensive coastal marine records from the UK waters. The NMS still holds a large component of the Louise Dauphin collection and they are helping to unite it under the CETAF banner.

NF-UK expressed that NMS is looking forward to being a full member of the CETAF community. Furthermore, as a geologist *NF-UK* is especially excited about contributing to the Earth Science group (ESG) and is delighted that the principal curator of Earth Systems from NMS, Rachel Walcott, is already deeply involved with this group. In 2022 along with RBGE, NMS shall be

hosting the joint annual meeting of SPNHC, the biodiversity heritage library. Finally, a few words were said about the DINAS consortium as a whole that there is a particular strength of our group in geology and they hope expertise can broaden the reach of the geological collections of the CETAF membership. Their joint aim is tackling biodiversity challenges together despite political boundaries.

Final voting results (31): Yes=31, No=0, Abstention=0. The application for full Membership of NMS was approved.

11. GB DISCUSSION ON NEW MEMBERS AND MEMBERS UPGRADE

- *MG-FR* asked about the OUMNH presentation and the statistics: How many of the 6232 research visits are from the UK and other countries, does the consortium have a UK based research activity?. *PS-UK* answered that they are completely international, the outgoing loans give a good representation of this: $\frac{2}{3}$ of loans are international in any given year; $\frac{1}{3}$ are to UK universities and research centres.
- *MG-FR* asked why there is a border separating the Ireland museum. *PS-UK* answered that although they work very closely with Ireland partners, since it is a UK consortium it was suggested to only include UK nationals.

COMMUNICATION ACTIVITIES

AC-CETAF introduced new members of the CETAF General Secretariat Team: Marie-Laure Kamatali (DiSSCo Prepare Project Assistant), Celine Cassarino (Communication Assistant), and Marine Ejuryan (Projects Coordinator) who joined in October.

12. PRESENTATION OF THE CETAF NEW WEBSITE

AC-CETAF presented on behalf of Celine Cassarino. *AC-CETAF* indicated that this task had been a big challenge and has included the efforts of a large team including Franck Theeten (RMCA) and Patrick Semal (RBINS). The building of the website was subcontracted to a company called Dream Machine.

What is new? We have transferred to Wordpress CMS (the old website was on Drupal) because it has a more community-based system. We have changed the back-end and also the front-end to make it more appealing and impactful. New architecture includes changes to the CETAF passports, web services have been implemented to link data from the CETAF Registry of Collections (Plone System) to the website including the CETAF passports. There is a new architecture of data developed in collaboration with RBINS. Collection data is structured following the standards developed in both SYNTHESYS+ and now in DiSSCo Prepare and

following recommendations from ICEDIG. The Plone system includes information on Organisation, Facilities, Research, Expertise, and Training. It follows the main structure from the CETAF passports. The website can do data searches based on four main categories: Institution, Collections, Facilities and Expertise. Collections are broken down further, quantity of objects, categories, and name of collection managers. The website has also information on the Working Groups (AC_CETAF thanked those WG Coordinators that have already made contributions to the text). In the main menu there is a private area where members can exchange information and use a repository. The website is simpler and more straightforward. We can easily highlight messages about biodiversity, figures of the community, welcome new members, highlight participation in projects and initiatives, etc. AC-CETAF encouraged members to keep contributing with images and content. The community private area will remain as a core area of the website.

Questions:

- *Elspeth Haston* (Royal Botanic Garden Edinburgh-RBGE) (*EH-UK*) asked how the information about collections is going to be stored in the new website and how that is going to link with DiSSCo and ELViS? AC-CETAF answered that the information will be allocated in the Plone system as a source of information that will be directly linked to the DiSSCo infrastructure. CETAF is now working in developing the working flows to make this feasible. We have started by making sure all the standards are the same (e.g. the MIDS, SYNTHESYS+, ELViS etc.). *Patrick Semal* (Royal Belgian Institute of Natural Sciences-RBINS, Brussels) (*PS-BE*) added that the Plone system is an input interface, all the information is stored in an Elastic-search index and DiSSCo will go and retrieve information via the elastic search.
- *EH-UK* asked how will the information be maintained? *PS-BE* indicated that each institution will have a username and password so that it can maintain its own information in the Plone system. It will have an API in which other systems can read data.

13. PRESENTATION OF THE CETAF COMMUNICATION WG OPERATION

AC-CETAF presented the new CETAF Communication Working Group (aka Communi.team) in terms of its members, its objectives and how it will support the CETAF community at large. It was notified that the core values of the community remain in the working groups that address topics of interest from the community and make developments internally to meet community needs. The Communi.team is important because communication is at the very core of our objectives. As a community we need to communicate our activities in an impactful way which is relevant to natural science collections, other stakeholders and third parties. Now that we have

a communication person at CETAF we can put communication strategies into practice. The spirit of this new working group is to foster engagement with communication people from each of CETAF member's for improving dissemination of Natural Science collections-related topics within and outside the institutions. It also aims to come together and share the expertise and experiences of the communication people to brainstorm about the major topics of interest for institutions and elaborate joint messages, and drive our messages forward to other audiences.

The goals of this Communi.team are:

- To facilitate community togetherness and to share expertise and best practices in terms of campaign communication activities.
- To co-create knowledge in terms of communication put also in terms of the key messages that might be relevant to our community.
- To support, share and inspire each other in regard to the communication that works at the institutes, by collating their interests and understanding the different needs of the institution.
- To try and connect and harmonise communication actions to better design and implement communication campaigns relevant to all the institutions, also to circulate all the news and the events. What they expect.

The working group expects to increase the web and social media presence of CETAF. They want to engage with the communication strategy that the partners in the different DiSSCo related projects, for example the 'DiSSCo Happy Hour' in which the CETAF team is already supporting.

It is planned/foreseen that the Communi.team will have a meeting every month preferably between 3 - 4 pm (CET). For further information you can contact the CETAF General Secretariat.

14. CETAF E-SCoRe AWARD - G. KAHILA BAR GAL (HUJI)

E-SCoRe is the new CETAF award for Excellence in Research based on Natural Science Collections. The winner of the 1st edition of the E-SCoRe award is Pablo Muñoz Rodriguez who was announced on the International Biodiversity Day (22nd May). Before Pablo was given the floor to present his work, some information was provided by *Gila Kahila Bar-Gal* (National Natural History Collections Jerusalem, IL) (*GK-Secretary*) about the number of applications received and diversity in discipline. Altogether there were 26 applications, 24 fulfilled all the requirements, 10 applications were from CETAF members, 16 applicants were young scientists (received PhDs between 2015 - 2019), and 7 were PhD students. Participants represented 14 nationalities. There were some interesting pre-reviewed manuscripts associated with natural history collections. Disciplines included: taxonomy, systematics, biodiversity patterns, conservation, biogeography and palaeontology. Each of the works submitted had different

perspectives of using the collections. Some of the research used the already curated specimens in institutions, also from CETAF, some established new collections and others included a mix of both.

The winning research of Pablo Muñoz Rodríguez was introduced. It focuses on understanding the origin and evolution of the sweet potato and its most closely related wild species, known as crop wild relatives. This research included the study of thousands of specimens from over 100 herbaria worldwide and the sampling of 2000 specimens from over 80 institutions for DNA studies. His research has an impact on biodiversity as he discovered 63 new species in the sweet potato family and wild relatives of the sweet potato. The work also has an impact on the understanding of food security and sustainability because he discovered and identified a promising reservoir for genetic diversity for sweet potato improvement. Pablo also established a website that everyone can use and screen and learn about the new species. His research shows the importance of how everything links together (taxonomy, genetics, applied uses of data). The diverse applications for the E-SCoRe showed the importance of the collections as a foundation and resource for research in various disciplines.

14.1. Presentation of the 1st edition winner's work

Winner's Work : Pablo Muñoz Rodríguez

Pablo Muñoz Rodríguez (*PMR*) thanked CETAF for nominating him for the award and the kind words about his work, and then he presented the main aspects of his research. He started by providing his career background (i.e. he is a botanist, biologist and taxonomist). He is currently a postdoctoral researcher at the University of Oxford working with Robert Scotland. His speciality is research on tropical plants. His work focuses on the Morning Glories, one of the largest groups of tropical plants. Their geographical distribution is poorly known, and taxonomy is messy. The most famous Morning Glory is the sweet potato. His work was committed to solving the taxonomic problems and monographing the genus at a global scale. After 6 years of studies a monograph of the Morning Glories (800 pages book) was produced. The work relied heavily on the use of natural science collections, which were used for morphological study, and molecular sequencing to obtain as much data as possible to make taxonomic decisions. He visited all European and North American herbaria, and most Latin American herbaria. Pablo highlighted that when studying such a plant group which has a pan-tropical distribution and is mega diverse there is no way one can visit all field localities, thus they rely heavily on collections. Another highlight, thanks to cutting edge techniques for DNA sequencing, was that they could sample specimens collected over 200 years ago. All this research allowed him to study the origin of the sweet potato. Not too long ago the sweet potato was an important staple food in European countries. The main findings of his research included the clarification of

the relationship with the Close Wild Relatives which constitute the potential sources of genetic diversity for the sweet potato. Some new species are being used in breeding programmes. They have described two new species related to the sweet potato. Pablo and colleagues have discovered the early domestication of the sweet potato which was a crop of American origin. The sweet potato is a food resource and some species critically endangered. *PMR* highlighted how important it is to have a comprehensive understanding of the whole genus it belongs to. The work would not have been done without the use of Natural Science Collections.

LS-Chair congratulated *PMR* for his work, thanked the review panel and mentioned that this has set the bar very high for the next round of the awards.

14.2 LAUNCHING OF THE 2ND EDITION

AC-CETAF presented the 2nd Edition of the award which will run from now (15th October 2020). The submission of applications will last until the 31st December. Afterwards, the applications will be reviewed. On the 22nd May 2021, the winner will be announced, which coincides with the International Day of Biodiversity. Participants of the meeting were encouraged to spread the word.

15. GLOBAL BIODIVERSITY COALITION

AC-CETAF highlighted the major actions being presented item 15 and 16 can help highlight the value of biological and geological collections. Thus, we need to link our endeavours to global initiatives and to third parties that consider biodiversity is linked to human welfare. The Global Biodiversity Coalition launched by the European Commission Directorate General of Environment (DG ENV) on the 3rd March 2020 (World Wildlife Day). Gilles Doignon (Head of Communication) had previously launched a campaign against marine littering. From his previous experience he understood that the second step should address biodiversity specifically, with the aim of mobilising national parks, botanic gardens, aquaria and zoos, to raise awareness and engage citizens on the impact of human activity on biodiversity through specific exhibitions held in individual institutions as an entry point. Furthermore, the campaign should seek to use these entry points to influence the media and politicians to take action at the COP 15 (first planned in November 2020 now moved to May 2021). Due to the COVID pandemic the campaign has shifted the target audience from the general public to a more scientific-driven approach. Overall, the Coalition called upon research centres, natural science museums, botanic gardens to join forces and raise voices on the natural crisis, with new partners joining everyday: an ever-growing community that understands we have to unite voices towards the policy makers and leaders that will meet under the COP 15.

The CETAF community endorsed the pledge that was raised with this coalition on the 19th May 2020 and started to participate in social media and communication actions, in alignment with the International Biodiversity Day on the 22nd May. On the 21st September 2020 CETAF and all its members joined the Global Coalition ahead of the UN Biodiversity Summit (30th September). The actions that were taken included the publication of a press release endorsing the coalition partners' call to world leaders to take ambitious measures to preserve nature. There were press releases from individual members (e.g. University of Crete, Slovak Academy of Science, Zoological Research Museum Alexander Koenig.). CETAF was also involved in a social media campaign, where hashtags such as #NatureForLife, #ForNature, #Biodiversity Summit, #LeadersPledge4Nature supported a joint call for action. The action will continue on the 19th October (opening of the EU Green Week) when all of our 63 institutions will be pinned in the official map of the official page of the Global Coalition on the DG ENV website. All CETAF members will be mentioned as critical forces underpinning this coalition.

Participants of the CETAF47 were encouraged to publish their own press releases if they had not already done so through their communication teams. If members have already done this then they may refine it and renew it for the media attention, to make sure the COP hears the message and proposed actions.

16. CETAF COVID-19 Task Force

AC-CETAF reiterated how the Global Coalition is at the core of communication and how we outreach, in direct linkage to biodiversity preservation in terms of making sure that our assets are a resource that other communities can use to enhance research and undertake a multidisciplinary approach to address the challenges our society faces. One of the tremendous challenges we are faced with is the COVID 19 pandemic. From the CETAF perspective we started to think how we can use the community resources to mitigate the effects (of this likely animal derived disease). We, as a community, have something to contribute because we ask a lot of questions, such as: what is the origin of the virus?, what is its distribution pattern globally? We provide the baseline knowledge/information, such as genetic resources and literature related to potential hosts, that we deliver to other communities. This was the motto of the COVID task force, i.e. putting the community into action to mobilize resources that other disciplines can use to mitigate, anticipate and prevent outbreaks recurrence.

CETAF and DiSSCo started this community rooted initiative jointly. It began with 60 experts in bats from around the world coming together to analyse different aspects of NSCs in relation to the pandemic. The task force has met every Friday since the beginning of April 2020 to exchange expertise and to work on specific outcomes that could be of added value in this current situation. The experts were divided in 4 different activities:

- 1) **Analysing of animal virus carriers:** This had the objective of identifying priority questions that biodiversity scientists should explore about pathogen origins, spill-over processes and their ecological correlates. They circulated a questionnaire with over 100 responses from a diversity of expert disciplines. This subgroup is preparing a paper on the results.
- 2) **Preservation of viral evidence in deposited biological specimens and samples:** the objective was to develop guidelines to identify types of samples to be preserved, along with the optimal storage methods and the necessary metadata. Again, they circulated a survey on microbiological sampling practices to the microbiological community. The outcome is a Manuscript submitted to mBio: *'Preserve a voucher specimen! The critical need for integrating Natural History Collections in infectious Disease Studies.'*
- 3) **Biodiversity-related knowledge hub on COVID-19 :** This group aimed at collating literature on host animals. One of the major lessons learnt from the group was the need to change how to publish data that should be immediately accessible, citable, discoverable, and reusable forms of digital knowledge, starting by expanding the semantic publishing.
- 4) **Registering practices on genetic metadata deposition:** The objective was to identify and define the high-level meta-data requirements (definition and refinement) and provide guidance and tools required to capture these meta-data in GenBank. The expected outcomes include the production of templates and associated materials for SAR-CoV-2 metadata.

There was a public event on the 17th of July to communicate the results of these actions, and generally make people aware of the task force. There have been some spin-off actions including a proposal accepted under the Virtual Access call 1 in the project SYNTHESYS+ on the topic of COVID-19 Chiropteran knowledge base - based on the need to analyse the viral information of different bat families. Finally one of the most exciting spin-offs currently ongoing is a proposal to submit to the COST-Action Call (deadline 13th November), led by Cristiane Silveira (ULisbon), to create a Pan-European multidisciplinary network of experts.

CETAF STRATEGY 2015-2025

17. CETAF STRATEGY MID-TERM REVIEW

M. Price (Conservatoire et Jardin Botaniques de la Ville de Geneva-CJB, Geneva) (*MP-ViceChair*) developed the strategy along with the EC and CETAF member institutions from 2013-2015. The first CETAF strategy workshop was held in Edinburgh at CETAF 34 where participants did a SWOT analysis. The strategy came into effect in 2015, with 31 directors signing an Executive Summary of the CETAF Strategy in early 2016. *MP-ViceChair* presented what was done for the

current review and how it was done, and very briefly went over the recommendations. There was a workshop on the strategy held in Leiden in 2019 where the strategy was discussed by the community. The conclusion was that the community is largely happy with it, and that evolution rather than revolution would be the right way to develop it. The Chair then requested the Executive Committee do a mid-term review of the strategy. This was done in 4 intensive meetings held during July and 2 in September. It was based on the annual progress reports that CETAF produced, the feedback received from WGs and outcomes from the CETAF workshop in Leiden. The aim for the review process was to take check of where we are and to propose any necessary modifications to the current document. For the review process it was important to focus on the status of targets, taking into consideration that the landscape has changed since the CETAF Strategy came into effect in 2015. The same color-coding system was used for the Mid-term Review (MtR), as in the CETAF annual reporting i.e. green (achieved) yellow (in progress), red (on alert). Then, the EC looked at how easy the targets were to compile, analysed their achievability as well as CETAF involvement in its achievement (linked to the landscape). They looked at actions that were possible to facilitate achieving each target and what may need to be done to adapt a specific target. They then used the global assessments to come up with recommendations. For some of the targets there were no recommendations, for others it was a case of rewording them to adapt the targets to the current circumstances whereas for others, where little progress had been made, the targets were adapted to the new landscape.

The mid-term review was a collaborative effort, *MP-ViceChair* and thanked *Eva Häffner* (Botanic Garden and Botanical Museum, Berlin) (*EH-DE*) for helping her with this endeavour. *MP-ViceChair* noted that, more importantly than looking back into the past via the MtR, CETAF needs to move beyond this, focus on current issues, and start projecting into the future.

17.1 PRESENTATION OF THE REVIEW AND RECOMMENDATIONS BY THE EC

EH-DE presented the actions derived from the Strategy MtR, and went through some of the major changes and recommendations (as a baseline for the next day workshops). Some selected recommendations to amend the strategy: (see the presentation on the CETAF membership page, as supporting document)

Focus Area (FA) 1: Research in systematics & taxonomy: integrating new tools and innovations

- It is suggested that target 1.1 should be split into 2 sub targets, for example: 1.1a 30,000 new taxa described; 1.1b 20,000 scientific articles book and monographs published. It is also reworded slightly. The reasoning is that the progress towards the target and the data collation process differs quite a lot between both sub-targets, and also in the face

of the large taxonomic gaps that we have an increase in the rate of the new species description is needed so we would like to have this parameter separated from other aspects.

- Target 1.3, it has been suggested that the ending is changed to '90% of the journals of our members institutions are digitised with full open access' instead of "and digitally available" mainly because most journals are now digitally available, and in the future scientific output should be machine-readable and data minable.
- Target 1.4. It is recommended that this is divided into two sub-targets: 1.4a CETAF undertakes or collaborates to achieve taxonomic and expertise gap-analyses; 1.4b CETAF initiates a collaborative taxonomy-based initiative in Europe. The reasoning behind this is that it is more likely to be doable when broken down.

Focus Area 2 Science policy and key performances indexes

- Target 2.2 'CETAF outcomes and positions endorsed by CETAF members. It is suggested that this should be expanded to add "and where appropriate, implemented in member institutions". The reasoning behind being that some outcomes do not only have to be endorsed but also implemented (e.g. CETAF stable identifiers, ABS Code of Conduct).

Focus Area 3: Natural history collection management and access to collections

- Target 3.1 it is recommended that this be subdivided into: 3.1a 10% of our 1.5 billion natural history collections are database, digitised and digitally available; and 3.1b Scientific collection visits increase by 10%. It is underlined the need to complement the joint approach to digitisation through DiSSCo with the need to share know-how between members throughout the CETAF community.

Focus Area 4: Biodiversity informatics and information technologies

- Target 4.4, this should be modified to target a more community-oriented mapping of existing and emerging large-scale and cloud-based infrastructures. The achievability of this target is inherently linked to the evolution of the EOSC as well as to the implementation of DiSSCo in 2025. Data archiving and data back-up are good topics to consider for CETAF guidelines and recommendations.

Focus Area 5: Taxonomy training and e-learning

- Target 5.3. This target has already been achieved so it is recommended that it is changed to focus on CETAF member institutions engagement in DEST and their contribution to the development of the training offer under DEST. For example, 80% of

CETAF members are actively engaged in offering training which should be allocated under the DEST initiative.

Focus Area 6: Communication, outreach and societal relevance.

- Target 6.2. It needs to be decided if the number of symposia to be organised by CETAF should be increased from 4 to a more ambitious number.

EH-DE provided a short summary of the selected action points for the future for each of the Focus Areas. (See presentation).

L. Schulman closed the 1st day of CETAF 47.

Day 2: Thursday 15th October (10:00 - 15:30 CEST)

CETAF 47th Governing Board Meeting (CETAF47)

OPENING OF 2ND DAY

The second day was officially opened by *LS-Chair*. An important notification was announced about the voting from the 1st day, regarding inconsistencies in the total numbers due to the fact that in the Zoom platform, once the meeting started, there was no possibility to check arrival or leaving times of members to the meeting. Participants agreed that it would be ok for the CETAF General Secretariat to adjust votes (in terms of number of Members present) in the final numbers.

CETAF STRATEGY 2015 - 2025 MID-TERM REVIEW

17.2. RATIONALE AND PRESENTATION OF THE BREAK-OUT SESSIONS

LS-Chair explained the instructions for the breakout sessions: Everyone had the possibility to comment on the recommendations the EC have put forward. The goal was to make sure that the whole consortium can continue to endorse the strategy in its reviewed form. The actual strategy has been endorsed formally by directors of member institutions, so it needs to have the same level of endorsement from the representatives of the institutions. It was decided that all the 6 break out groups were to discuss the same questions: Which recommendations do you agree with? Are you willing to approve them as they are, or if not, do you have some

constructive comments? There are 6 targets to be discussed, specifically Targets 1.1, 1.4, 2.2, 4.4, 5.3 and 6.2 . The form of the strategy is the most important, i.e. how we formulate CETAF's targets for the coming 5 years. 25 minutes was given for the discussion.

17.3 BREAK-OUT SESSIONS

17.4 PRESENTATION OF OUTCOMES FROM PARALLEL SESSIONS

Group 1- convened by *EH-DE* (Annex 10)

- Target 1.1 the splitting of this target was strongly supported, while the number of 30,000 taxa was considered extremely ambitious to reach. There is a focus on how the numbers are collated, for instance on a scientist level, journal published or collected based on collections. We should focus on how to collate these numbers, i.e. going through open access aggregators. They would like to focus on data FAIRNESS because open access is not enough. Moreover, the figures should include journals that belong to institutions.
- Target 1.4 this recommendation on rewording and splitting was supported.
- Target 2.2 revision was supported
- Target 4.4. It was considered tricky because the landscape is moving so quickly. t's ambitious, but no solution on what a feasible target would be is identified.
- Target 5.3 recommendation was supported
- Target 6.2, it was indicated that the number of symposia is not important.

Group 2 -convened by Vince Smith, NHM London, EC Member (*VS-UK*) (Annex 11)

In general, the group agreed with the recommendations, it is just a case of tweaking the wording.

- Target 1.1. there was a similar discussion to group 1, particularly on whether some wording could be added around FAIR data, something along the lines of 90% open access, but moving towards FAIR open access
- Target 2.2. A point was made about the appropriateness of CETAF's position on institutions that have mixed collections (i.e. non natural science collections) and how the wording best represents that. But in general, the word 'appropriate' may cover that.
- Target 3.3. No comment. Regarding visits, the capacity of the individual institutions should be considered as some are already at capacity.
- Target 4.4. There was a general discussion about the definition of what digital storage means, and in particular how it relates to EOSC. Although EOSC is insufficiently developed there is a need to be clearer on that.
- Target 5.3. no problem with the 80% target was found.

- Target 6.2. this could be changed to 10 or 1 per year. But in general, group 2 was in agreement with group 1.

Group 3 - convened by Gergely Babocsay, HNHM; EC Member (GB-HU) (Annex 12)

- Target 1.3 was considered reasonable. Questions were raised about the GTI relationship and how it was going to work.
- Target 2.2. The word endorsement needs to be clarified, and what implementation is.
- Target 4.4. There was a question about the storage capacity if there is a list of storage capacities. If institutions have something already and are they willing to share. EOSC should be added.
- The rest of the targets were generally accepted.

Group 4 - convened by Thierry Bourgoin, MNHN Paris, EC Member (TB-FR) (Annex 13)

- Target 1.1. The group proposed to change the word 'scientific' to 'peer reviewed'
- Target: 1.4. They supported the separation of taxonomic and expert.
- Target 2.2. It was proposed to change the 'endorsement of the target' to 'target to be implemented' but then the target needs to be better documented.
- Target 4.4. A suggestion to add such a collaboration with DiSSCo and other initiatives.
- Target 5.3 is considered 80% too ambitious.

Group 5 -convened by M P-ViceChair

- Target 1.1. There was a discussion around whether 'scientific' is better than 'peer reviewed' It was agreed that scientific is better because it includes popular science journals.
- Target 1.3. This was considered too ambitious.
- Target 2.2. The group agreed with the target.
- Target 4.4. It was suggested to change wording to incorporate collaboration with relevant actors of digital storage.

Group 6 - convened by ES-Treasurer (Annex 14).

- They agreed with most aspects from other groups.
- Target 1.1. Suggested to change the wording to new and named taxa,
- Target 1.4 The group agreed with the target.
- Target 2.2 The group agreed with the target.
- Target 4.4. A proposal to rephrase this to collaborate with relevant actors.
- Target 5.3. The group agreed with the target.

- Target 6.2. The number of Symposia is less significant than the quality.

18. PLENARY DISCUSSION AND OUTCOMES

- Christoph Haeuser (MfN Berlin) (*CH-DE*) mentioned that more time is needed for members to review and accept the strategy changes. He also expressed that there are some missed opportunities in revising the 5-year strategy. It does not show any reflection about the current global changes (e.g. the COVID crisis), and that there will be new challenges in the future. The COVID crisis has caused changes in individual institute missions and strategies. He asked whether the CETAF EC have considered to look and really update the strategy in terms of incorporating a new common vision in light of this and other issues.
- LS-Chair agreed that it may be too early to approve the strategy and more thought is needed on revising it.
- *VS-UK* also agreed and that aspects such as reconciling the different views of large and small institutions, also the financial effects of COVID are not considered. He indicates that the EC has not fully appreciated the breadth of change in terms of COVID, and also regarding DiSSCo. Personally he would have liked to see a summary strategy of CETAF's vision for the future and to move away from the structure of targets in the current strategy.
- *CH-DE* mentioned that CETAF needs to have a common vision so the community can face new challenges together not just for the reason of COVID but also the new landscape regarding DiSSCo and Europe. He pointed out that we might not know yet what opportunities will arise e.g. in the EU Green week.
- *EH-DE*, commented that there is no doubt that our world is changing rapidly and we should make reference to this fact. There are many different steps that we need to take, for example we need to go to the proposed strategy and then to the actions to deal with this new landscape. It is important to build on what we have achieved now because CETAF is in a very strong position, and it can give the individual institutions a lot. This has been achieved a great deal by building on the present strategy. It is important that we continue to build on our strengths and to move forward from there instead of focusing on completely revising the strategy. For example, taking the young generation with us, we have a good position for this, for instance with the Distributed European School of Taxonomy. CETAF needs to tweak the targets to activate this and make it a lot more inclusive among the members and boost the training for this purpose. In conclusion we should use what we have, e.g. our good position for political influence, and start envisaging and working towards CETAF positions in the future.

CETAF WORKING GROUPS (WG)

19.1. BIODIVERSITY MONITORING WG

Presented by AC-CETAF on behalf of Livia Schäffler (Zoological Research Museum Alexander Koenig, Bonn). The group has been working hard on a COST action proposal that was developed for the last call in 2019, titled 'To build a harmonized pan-European biodiversity monitoring scheme'. Unfortunately, the proposal was not chosen. There is an existing challenge to harmonise and integrate existing, taxonomically or spatial monitoring, and to develop an innovative monitoring scheme. The proposal was large, there were 35 proposers, 50% were from COST target countries, genders were well balanced, a wide range of disciplines were included, etc. Also stakeholders from outside the community were integrated. It included core aspects of the COST actions such as geographical and seniority balance. The Biodiversity monitoring proposal was a very ambitious one. The project attained high scores in the evaluation report for the following criteria: Scientific and Technological excellence (87%), also Networking (87%), and Impact (93%). It also included strong links to environmental legislation and how the action could lead to the establishment of new directives, policies and laws. The weakest part of the proposal was to do with the ambitious scope and the variety of policies that it was intending to tackle. Stakeholders were included from outside the community. It is intended that the call will be reviewed and amended and re-submitted. Livia Schäffler will lead this and take advantage of the current and upcoming biomonitoring initiatives in our landscape.

19.2 EUROPEAN ADVISORY BOARD WG

Presented by Vanessa Demanoff, MNHN Paris (VD-FR). The presentation gave an update on the call for proposals, missions and biodiversity partnership under Horizon Europe. *VD-FR* provided a recap of the timeline. At the end of September 2020, they started receiving draft work programmes on the various clusters and the programme committee started to meet at the end of October 2020. The committee on Cluster 6 (most relevant to CETAF) met for the first time on 8th October. A recap on the structure of Horizon Europe, (a continuation of Horizon 2020) was presented in terms of its current structure of the work programme. In particular regarding EOSC with the current proposed topics (early draft form), the most relevant pillar to CETAF is No 2 'Biodiversity and ecosystem services'. Attention was brought to the topic in this pillar "Horizon-CL6_DEC-2022-00-00: Building taxonomic research capacity near diversity hotspots and protected areas by networking Natural History Museums and other biodiversity research centres. Members can refer to the 19.2 presentation to see the list of current draft topics under Cluster 6 (CL6).

VD-FR - emphasised the importance that members stay in touch with their national contact points and programme committee members, so that the mentioned priorities remain as topics in CL6. This is an important time in the process of structuring work programmes.

An update on the biodiversity partnership was highlighted as a follow up from BiodivERsA. Some countries have created mirror groups, where partners are free to get involved. The mirror groups have all the stakeholders and may have a voice in the structuring of a project. The current issue is the Strategic Research and Innovation Agenda (SRIA) of the European Commission, which is being developed through BiodivERsA, and is currently open for consultation before it becomes a WP with specific calls.

19.3. LEGISLATION AND REGULATION WG

Presented by Dirk Neuman, ZSM Munich (DN-DE). The group consists of 9 people from different institutions. The group has been involved with various missions. The first mission was regarding digital sequence information (DSI) and whether that should fall under the Nagoya Protocol (NP) and should be regulated more widely. Three members of the group participated in an ad-hoc expert hearing in March, including *DN-DE* who represented CETAF. The experts presented more clarity on what DSI could entail. We, as CETAF, favour very narrow focus for genetic sequence data, but from the political debate it is clear that it could also include Nucleotide Sequence Data, Genomic & Proteomic Sequence Information and Metabolomic Information. The final report from the final political decision will be given at the next CBD meeting.

The second mission was the introduction of a global multilateral sharing mechanism under Article 10 of the NP. A new scoping study precisely identified collections and collection objects, and that these items could be relevant to legitimate claims for a multilateral benefit sharing. In this study two CETAF members were explicitly mentioned, and data from MNHN and RBGK, anchored on their specimen data/passport data, were made available in the public domain databases (at CBD). The study was opposed because it would have far reaching implications for the CETAF institutions.

Thirdly the negotiations on Global Biodiversity Framework started in more detail. This will be a non-binding international UN agreement that is to be adopted in the next coming year. The framework introduces indicators and measures to determine the amount of benefit sharing that has been delivered to provider countries of DSI. In the current draft version, there are a lot of indicators to be included that are often used.

In some EU countries checks are already being carried out regarding institutes compliance to ABS and EU regulation. The working group seeks active feedback on whether CETAF members have been approached by the national regulators, to gain an overview of what is currently going on. Also to be published this Autumn will be the new guidance documents, which will hopefully give more clarity on responsibilities and obligations.

The objectives on tasks include more interaction with MOBILISE and DiSSCo regarding the harmonisation of policies and international coordination. They would also like to remind CETAF members to provide feedback regarding their use of the Code of Conduct.

The group wanted to organize a training course for ABS representatives but this has been put on hold because of the COVID crisis, but they hope to announce a new training soon.

19.4 COLLECTIONS WG

Presented by Luc Willemse, Naturalis, (LW-NL). The collection working group has had a number of virtual meetings and has made an action list which contains activities that require attention but not much progress has been made until now. They had planned to have a workshop during SPNHC this year about storage space, but it was cancelled. Currently they are preparing it for a virtual meeting, and they have carried out a survey as preparation for the workshop. They are focusing on increasing efficiency in conducting tasks and communication with curators and collection managers at CETAF member institutions. They also want to focus on training around specific aspects of collections and are hoping to gather expertise on this.

For next year they are changing their regular meeting sessions, by having monthly meetings instead of quarterly. They will use the meetings as brainstorming sessions to discuss topics or interests regarding collections (e.g. acquisition, innovation aspects, image recognition and risk assessments on handling logistics, private collections). Next month they will start to organise a 5 year work plan. Also, as soon as the CETAF Registry of Collections is online they intend to advocate it among the CETAF members.

19.5. DIGITISATION WG

Presented by EH-UK. The main activities of the group were triggered by the CETAF strategy action points, particularly the one referred to 10% of collections should be digitised. But there were no clear definitions on the meaning of “digitised”. Thus, this led to work on the MIDS concept and standard, which will be used to measure the digitisation level of collection specimens. Members of the WG have also been engaged in the developments of the ELViS loans and visits system, people identifiers and the open digital specimen. This has mainly been done through DiSSCo Prepare, SYNTHESYS+ and MOBILISE.

Achievements for this year: A key one is the creation of the TDWG task group for MIDS standards which CETAF members are encouraged to get involved with. Alex Hardisty, from Cardiff University, had also been working a lot on this. The WG has come up with 4 levels of digitisation, one of those is a pre-digitisation level. The MIDS is being incorporated into DiSSCo.

EH-UK mentioned that it would be good to see the MIDS more explicitly incorporated into the CETAF strategy, but that this may need to wait until the standard is finalised.

Burning topics: to highlight the huge potential of Wiki-data, and the current issue of institutions in Wiki-data relating to standardising institution records. There is the recognition of the need to look at images-linked standards. They will be finalising the MIDS standard in collaboration with the DiSSCo-linked projects.

19.6 ISTC WG

Presented by Quentin Groom, BGM Meise, (QG-BE) on behalf of Anton Güntsch (BGBM Berlin). The working group has been building on the Botany Pilot, which is the linking of collections through the CETAF stable identifiers, using linked open data. This pilot had led to the harmonisation of the implementation of the stable identifier much better, a work being partially done under SYNTHESYS+ NA4. They had a meeting early this year with the Digitisation WG (45 participants from 18 CETAF member institutions). They have launched the Botany Pilot now, which allows searches on people using the Wiki-data ID and provides their full biography. This is done by harvesting several sources of data from different collections who have fully implemented the CETAF stable identifier. They have a new guide to CETAF stable identifiers.

Burning topics: The WG needs to make sure that they are aligned with the goals of DiSSCo, and includes all CETAF organisations, particularly those that have not started on digitisation. It is important to get people involved in standard development.

The group is also considering having a GeoHackathon.

19.7. E-PUBLISHING WG

Presented by Laurence Benichou, MNHN Paris, (LB-FR). The E-publishing WG has have met twice this year and has participated in several projects. The first project that they are working on is the development of best practices in E-Publishing. They are still working on listing the identifiers and linking them to publications. They are hoping to have a first draft on best practices by early 2021, aiming to give some methods for workflows on the liberation of data and linkage of data in publications. In the scope of this topic, they have participated in a new project, a proposal named BiCIKL which is led by Pensoft, with several CETAF partners and the CETAF Secretariat involved, as well as GBIF and ELIXIR.

The WG has another project on increasing the impact of CETAF's journals in taxonomy, which is still in progress. Another project is being done in conjunction with librarians and archivists, which includes studying the analysis of the impact of e-publishing. The idea is to post a

questionnaire, hopefully at the end of the year, that is to be filled by all the libraries in our institutions. The group has submitted a proposal to the French National Funds for open science, for a business plan towards a publishing platform; finally, they have been working on a WoS category for taxonomy.

19.8 EARTH SCIENCE WG

Presented by Johanna Eder, SMNS Stuttgart (JE-DE). Activities of the ESG in 2020 include the following-up on the Hazards and Disasters Publication by collecting more detailed information used to develop a virtual exhibition/learning resource (in preparation). The ESG has focused intensively on developing the GeoCAsE portal. To accelerate progress, an advisory board was created consisting of a small number of people. A GeoCAsE Technical Roadmap has been established. The technical team under O. Hints at Tallinn University have been very active in making progress. An Election has taken place for a new ESG chair because J. Eder is retiring in January 2021. Rachel Walcot (NMS) was elected as the new chair and will take over in October 2020, she will be a strong voice for mineralogical collections.

Achievements of the WG include two presentations at Biodiversity Next (2019 - Leiden), the GeoCAsE test portal interface has been developed, *JE-DE* showcased some of the new specimen pages on the new GeoCAsE portal (see presentation). The work plan for 2021 will include continued progress with GeoCAsE and progress with surveys (Cultural goods legislation, Type specimens and Field collection legislation). The WG also is planning to develop a workshop around collection and specimen descriptions.

CETAF members were encouraged to provide data to GeoCAsE and also information to the surveys.

19.9. SCIENTIFIC RESEARCH WG

Presented by MP-ViceChair. This is a new WG with 3 co-coordinators: *MP-ViceChair*, *TB-FR* and *GK-IL*

MP-ViceChair invited the other co-chairs to present their motivations for coordinating the group. *GK-IL* believes that the group is very important because collections are kept up to date by the research being conducted on them and that research on them brings collaboration between researchers from different institutes thus increasing the strengths of networks. *TB-FR* reiterated what *GK-IL* said.

MP-ViceChair provided more explanation about the WG and its terms of reference. This group wants to focus on the core of CETAF which is taxonomic research based on and around collections. There is a need to create a common vision for our research activities across Europe.

The overall aim of the group is to create a CETAF Research Agenda for European Natural History Institutions which was begun several years ago based on a workshop that was held in London in 2018, with follow-on discussion sessions and workshops on defining taxonomic activities within CETAF institutions. The WG wants to be proactive in promoting research, and the use of collections for research. As well as forging links with appropriate organisations and associations. This will include fostering good collaborative relationships with the other CETAF WGs.

Furthermore, the WG wants to develop CETAF projects and initiatives focused on taxonomy-based research activities. There are immediate actions planned for 2021, for instance identifying key activities taking place in CETAF institutions, that will follow on from the above-mentioned workshops. The group would like to create workshops on key or emerging topics, in the scope of the GB meetings or within the group. Also, they want to identify cutting edge research questions, keeping in mind the dynamic landscape. The new motto of the group is CETAF *progress drives progress*. The WG is open to anyone, ideally comprising science directors and scientists, and CETAF members were encouraged to inform people of this group in their home institutions. It is now open to new memberships. *MP-ViceChair* was excited to say that there were already new members joining from the BioInspire project at MNHN Paris and anyone else interested in joining can contact one of the coordinators by email (*MP-ViceChair*, *TB-FR* or *GK-IL*).

GENERAL BOARD OVERALL DISCUSSIONS

Questions:

- *MG-FR* asked a question to the Scientific Research Group: On the importance of reaching taxonomy communities outside CETAF e.g. (amateurs) - Does the group have any plans in incorporating this into its objectives? *MP-ViceChair* answered: Once the group is fully formed it needs to develop a work plan. It is intended that this will include investigating how other groups work and creating outreach activities.
- *VS-UK* asked a question to the Digitisation WG about the MIDS and the timeline for completing the standard and how others can make comments and suggestions. *EH-UK* answered: The group is planning to finish the MIDS in April 2021 or within the next year at least. Regarding making comments, *EH-UK* encouraged CETAF members to join the

new TDWG task force. Comments can also be made on the ongoing documents, the link to the MIDS document is in the TDWG standard web page.

- *LS-Chair* said that this is a good time to think about how to open up the working groups for *ad-hoc* contributions, without long-term commitments.
- *PM-BE* mentioned that there was also a need to improve communication on the different initiatives and where to provide feedback on activities. There are so many initiatives and it is getting more challenging to navigate across such a complex landscape.

FORESEEN SCENARIOS

20. INITIATIVES AND PROJECTS

20.1 MOBILISE

Presented by Karol Marhold, SK Academy of Science, (KM-SK) and Catherina Voreadou, NHM Crete (CV-GR). *KM-SK* firstly gave an overview on the progress and announcements about the MOBILISE Short Term Scientific Missions (STSMs). STSM are exchange visits between researchers involved in a COST Action, which allow scientists to visit an institution in another COST Member state. The projects may last up to 6 month and should contribute to current COST objectives. The STSMs have been increasingly successful in the previous years (in 2018, 8 applications were approved, and in 2019 12, applications were approved), although the COVID crisis caused disruption to visits, during 2020. For 2020, 2 out of 3 applications were approved. The 3rd call deadlines are: Applications deadline is 31st August 2020 - 15th December 2020; Notification of Outcome 30th September 2020 - 15th January 2021; Period of STSM 30th September 2020 - 15th April 2021. Visits cannot be done online.

CV-GR, provided a description of the 2nd Training School ‘Digitisation and Data management challenges of small collections’ that took place in Warsaw on 13 - 14th February 2020. In total 44 scientists and 9 trainers were successful in their applications. Participants of the Training School (TS) were asked to fill in a feedback survey. Overall, the TS had very positive reviews with a rate of 86% excellent/good. The 3rd TS of the same title will take place in Crete in February 2021 - it is uncertain whether this will be a physical TS or will turn into a digital event.

20.2. BIOTALENT

Presented by GB-HU. An update was provided on Biotalent which is an online e-learning project and was developed as a 3-year endeavour. The course developed was called “Biodiversity in a changing climate”. It became an ERASMUS+ Programme. Now it is an open-

source e-learning platform which anyone can access, with a supporting user guide on how to implement it. The target group include biology teachers, civil organisations and national park employees. It is a certified training platform and selected by the EU Commission as a coronavirus online learning resource on their Education and Training platform. Biotalent is now transferred to DEST.

20.3. DEST

Presented by Hugo de Boer, NHM Oslo (HB-NO). DEST, the Distributed European School of Taxonomy, is an initiative endorsed by CETAF. It was originally coordinated by Isabelle Van de Velde, RBINS Brussels, and CV-GR. Since last year it has been managed by Maarten Van Steenberge (RBINS, Brussels), and Hugo de Boer (UiO-NHM, Oslo). DEST is formed from a consortium of CETAF members. Over the last year they have been working on creating the new DEST website, which is a platform where training can be advertised (e.g. people and institutions can open up courses to other members), it will also be a tool to reach a broader audience. People can register on the website and see what courses are available. The platform also helps with the administrative organisation of courses. Email dest@cetaf.org to get a form to register and to create a DEST course page.

20.4. SYNTHESYS+

Presented by VS-UK. The SYNTHESYS+ project is at the 18-month stage of its 4 year timespan. It is a long standing complex programme of work. The Transnational Access (TA) component has been affected by the COVID crisis. There have been 2 competitive calls for TA to date (2019 & 2020). TA demand still remains high with near 600 applications in both calls. There is an increase in international visitors (outside the EU). Virtual Access (VA) started with an ideas call in 2019 in order to test the process. ELViS was used for the 1st VA call in 2020. There were 30 full digitisation requests, with only 5 funded. One of the projects was the COVID knowledge base related to the CETAF-DiSSCo COVID19 Task Force. Other SYNTHESYS+ highlights include, good progress with ELViS, the completion of the Collections Digitisation Dashboard (CDD) led by CETAF, the creation of a handbook on identifier management for curators and several engagement activities such as a consultation on a global collection registry.

20.5. DiSSCo

Presented by Dimitris Koureas, Naturalis, Leiden (DK-NL). DiSSCo is now in its preparatory phase. This phase will last for 4 years and will improve the overall maturity level infrastructure, before entering the construction phase. The current phase is underpinned by various projects and activities that altogether contribute to its overall maturity. The main funding source is from the EU commission and other projects (global or national). The governance of this phase is

constituted by the interim General Assembly (iGA), which is a body of all the partners that have signed the European MoU for DiSSCo. They help govern the overall program of the preparatory phase. This will be a precursor governing body at later stages of DiSSCo, and counts on the advice of the funders forum (FF) with governmental representation that will be then governing the RI from the point where DiSSCo reaches its construction phase (2025). The DiSSCo Coordination and Support Office (CSO) is undertaking work in several categories i.e. overall coordination, development, outreach and engagement, support and training. DiSSCo will begin to leverage more expertise of the CETAF community towards the development of the infrastructure. Particularly from the CETAF groups, as some are extremely relevant such as the ISTC, digitisation, collection groups etc. Next year (2021) will be a hugely exciting year for DiSSCo because it will be a time for making committed decisions on how the infrastructure will take its form.

Questions:

- *LS-Chair* asks *VS-UK* whether they are planning to write a paper about the VA calls (digitisation on demand). *VS-UK* answered: There is a paper on the VA ideas call, and another being planned on the actual process and feedback.

21. CETAF NEW PROPOSALS

AC-CETAF provided an explanation on the upcoming projects and initiatives that CETAF is involved in. A new proposal has been submitted for a project called BiCKL (Biodiversity Community integrated Knowledge Library). This is open for new communities to identify workflows for integrated access to harvesting, liberating, linking, accessing and re-using sub-article-level data (e.g. specimens, material citations, samples sequencing, taxonomic names etc.) extracted from literature. Partnerships include Pensoft, ELIXIR, EJT, GBIF and DiSSCo, up to 14 members. It has a lifetime of 36 months, and a budget of 5 million. Hopefully, the proposal is successful because it has required a lot of hard work.

Additionally, a tender has been submitted. This is the 1st time that CETAF has submitted a proposal under a tender. Pensoft identified a call on a bid for a European Red list of Taxonomists. It was thought to be a good way to highlight the community of experts under CETAF. Pensoft (leader), IUCN and CETAF are in partnership. The lifetime of the tender is 15 months and has a budget of 100k. It follows the methodology of the IUCN red list of species. It is intended to create a knowledge base of experts and to support the input of data that can be used to identify gaps and where to place efforts. The geographical area is Pan-Europe, all European countries west of the 35-degree East line of longitude.

Moreover, *AC-CETAF* highlighted that CETAF has been admitted as Scientific Partner to the CBD. This is a success story for the community because the CBD is a major global organisation.

PS-BE presented the new CETAF Registry of Collections knowledge (RoCk), which is in its final steps of preparation. The CETAF RoCk has an easy input interface for adding information to the system, it integrates the current CETAF passport. The data structure follows the data standards of the SYNTHESYS+ collection classifications. In addition, there are categories for heritage collections. Eleven main collections categories are defined, which are further divided into sub-collections. Members can freely create further sub-levels for providing further information to platform visitors, but this detailed data will not be aggregated. It is possible to add information on the curator staff, links to institute websites, stratigraphy, storage and level of digitisation, etc. All information can be exported as excel files and can be transferred to other systems using JSON rest APIs. Elasticsearch has been implemented so that it can feed information to the new CETAF website. It is hoped that the CETAF Registry will be an authoritative source for information on collections and facilities for external initiatives. CETAF and DiSSCo will thus be able to use this platform

Questions:

- *PM-BE* asked how there are multilingual aspects included, regarding link literature in BiCKL? Also why does the project only consider Europe expertise? *AC-CETAF* answered: Tender is based on the methodology of collating expertise, rather than producing an actual list of expertise, we are not producing a database. In BiCKL multilingual aspects will be taken into consideration in terms of how to liberate information where there are language barriers.

OTHER RELEVANT INFORMATION

22. UPCOMING CETAF GB MEETINGS - A. CASINO (CETAF)

CETAF48 – Brussels, Belgium, January 14th, 2021

CETAF49 - Tervuren, Belgium, Spring 2021

CETAF50 – paris, France, Autumn 2021

CETAF51 – Frankfurt, Germany, Spring 2022

CETAF52 – Israel, Autumn 2022

CETAF53 - Gothenburg, Sweden, Spring 2023

CETAF54 - Warsaw, Poland, not yet confirmed.

There is uncertainty on the feasibility of a physical meeting due to the current crisis. In principle we need to have CETAF48 as a physical meeting in Brussels, in front of a notary (as explained in item 4 on day 1), most likely in the first half of February, which will have to be convened 15 days after that to ratify our current decisions and to approve the revised text of the statutes of CETAF. After that we will still have the offer from RMCA to host CETAF49 (hopefully a physical meeting). MNHN are also offering again to host CETAF50 as a physical meeting in Autumn 2021. Volunteers are needed for CETAF 55 and CETAF 56 in 2024.

Questions/comments:

- *PM-BE*: Regarding CETAF49 at the RMCA, the empowering biodiversity conference will no-longer be joined to the GB meeting. Maybe instead RMCA could host a DiSSCo GA or maybe combine the E-SCoRe award with some social event. The more we merge the better.
- *MG-FR* announced his retirement from his position at MNHN, so his colleague will take over the hosting of the CETAF50.
- *LS-Chair* mentioned, without hopefully causing upset or offence, that CETAF should consider changing its operation for meetings, and maybe every second meeting should be a virtual one. Or maybe some hybrid form of meeting, where people can choose to travel or not. The whole proposal needs to be considered by the Governing Board.
- *VS-UK* further commented that there are actually some benefits to virtual meetings in that they increase the breadth of people that can join and reduce our carbon footprints. NHM has a travel mandate which requires no air travel wherever possible thus making traveling more time consuming. Also, other institutes have new travel policies to try and reduce carbon footprints.
- *CH-DE* supported *LS-Chair's* suggestion on having a mixed meeting, virtual business meetings, and physical working group meetings.
- *AC-CETAF*: commented that virtual meetings can never be a substitute for physical meetings. Physical meetings are important for new members. In the future, at least, a hybrid operation of meetings is needed.
- Luca Bartolozzi NHM Florence (*LB-IT*), commented that physical meetings are better for networking and initiating collaboration via the breaks and social events.
- *LS-Chair* notified that he does not disagree with the benefits of physical meetings but maybe the physical meetings can be reserved for more interactive activities. He has an increasing travel burden, if we stick to old habits.
- *PM-BE*, highlighted the burden of the amount of virtual meetings especially with other initiatives and the fact that we spend practically all day in front of our computers, and

that this is especially challenging for meetings where participants are from different time zones.

The European Journal of Taxonomy (EJT)

Presented by LB-FR. She wanted to present and praise the 10 years success of the EJT. It is a diamond open access journal and now it is also a FAIR journal. A report was presented on the spatial coverage of data from countries and collection institutes, which is widespread. There is still a need for the harmonisation of institute names and a link to CETAF Registry might be the way.

23. AOB

Closing of the meeting

MG-FR provided a few closing words, thanking Salomé Landel and Dominique López for organising the hosting of the meeting. He also thanked meeting attendees for coming to the Paris virtual meeting.

LS-Chair summarized that he is pleased that the meeting ran more smoothly than he expected, and that CETAF is extremely grateful to Paris and their technical team. Thank you to *AC-CETAF* for coming up with the innovative legal solution to amending the statutes. It should be noted that the finances of CETAF look very good. It is wonderful to have the membership growing and see the success of the running projects. *LS-Chair* thanked the General Secretariat for managing these aspects centrally. It is great to see the strengthening of the Earth Sciences. It is also exciting to see the Communications working group starting and also the new website. Also, it was good to see the progress in the review of the strategy and the feedback has been valuable. It is also great to see the working groups still being active during this difficult time, there are exciting initiatives that are emerging. Finally thanked all participants, organisers and presenters.

The CETAF 47 general meeting was declared closed.
