

# **Atlas of European Mammals 2<sup>nd</sup> Edition**

## **Introductory Meeting**

**Institute of Zoology, Rome, Italy**

**25/26 November, 2016**

### **1. Welcome and introduction**

Giovanni Amori (IT) welcomed everyone to the University and the Institute of Zoology; Anna Loy (IT), President of the Italian Mammal Society also welcomed participants. Each participant briefly introduced themselves. A list of attendees is included as Appendix 1.

### **2. Background to the 1st edition.**

Tony Mitchell-Jones (UK) (TMJ) provided a brief history of the 1<sup>st</sup> edition of the Atlas and how it came about and operated.

### **3. Introduction to the proposal**

TMJ referred to the document previously circulated and the proposal for a 2<sup>nd</sup> edition. This was put in context with reference to other resources, new developments, technological advances etc.

### **4. Current state of mammal mapping in Europe.**

TMJ reported that many responses had been received to the questionnaire circulated. 15 countries in the Atlas area have a mammal atlas or are in the process of producing one. Other countries have databases of mammal records which may be centralised or regional or held by individuals. Appendix 2 summarises the responses. Hans Hollander (NL) gave an overview of mammal recording in the Netherlands. Thomas Jensen (DK) provided an overview of mammal recording in Denmark.

### **5. Geographic scope**

- a) Eastern border: Boris Sheftel (RUS) provided an overview of the many borders that have been used for delimiting “European Russia” for various purposes and pointed out that there is no single agreed border between Europe and Asia. In this case, a border should be chosen from these many options that is convenient for our purpose. Having consulted his colleagues in Russia, he recommended a border that follows the Ural Mountains and then follows the Kuma-Manych Depression north of the Caucasus (see [https://en.wikipedia.org/wiki/Kuma-Manych\\_Depression](https://en.wikipedia.org/wiki/Kuma-Manych_Depression) ). This is the same border used for the Florae Europaea project. An advantage of this solution is that several Asian species that have a marginal occurrence in the Caucasus can be removed from our species list. It is also a practical solution for data collection by Russian colleagues and avoids the inclusion of Kazakhstan. This proposal was agreed by the meeting.

- b) As a general principle the borders for the 2<sup>nd</sup> edition should follow those used for the 1<sup>st</sup> edition, so that comparisons can be made across a long time-period.
- c) Greek Islands: although Brummitt(2001) excludes some of the most easterly Greek islands from his definition of Europe, it was agreed that, in line with the 1<sup>st</sup> edition, all the Greek islands would be included. This has only minor implications for the species list.
- d) Macronesia (Azores, Canaries, Madeira): these islands, although not included in most definitions of Europe, were mapped in the 1<sup>st</sup> edition because they include many species found in mainland Europe. In order to maintain continuity of coverage, it was agreed to include them again for the 2<sup>nd</sup> edition. This will require the addition of a small number of endemic species to the list.
- e) Elsewhere, the borders of the 2<sup>nd</sup> edition would follow the borders of the 1<sup>st</sup> edition. Thus Cyprus and the Anatolian peninsula of Turkey would not be included, but Svalbard and the Faroes would be included, as they were for the 1<sup>st</sup> edition.

A map showing these geographic borders is included as Appendix 3.

## **6. Mapping resolution**

The 50x50 UTM grid developed for the Atlas Flora Europaea (see <http://www.luomus.fi/en/new-grid-system-atlas-florae-europaeae> ) was used for the 1<sup>st</sup> edition and it was agreed that the same resolution would be appropriate again. This grid, also known as the CGRS, has been used for most European-scale distribution atlases, such as the Atlas Flora Europaea, the Atlas of amphibians and reptiles in Europe and the new European Breeding Birds Atlas 2.

The development of a new EU grid system (INSPIRE) was mentioned. This covers only EU countries and offers resolutions of either 10km or 100km, neither of which is suitable for our purpose or compatible with the first atlas. No doubt tools will be developed for converting from our 50km grid to the EU 100km grid.

There was some discussion about whether density data or breeding data could be added to maps. It was agreed that although desirable, most countries would not be able to provide this data and that no country would be able to provide it for all species. This data will not appear in the maps but can be referred to in the text for the species accounts and it was agreed that the species accounts text for the 2<sup>nd</sup> edition might be better used to enhance the information in the distribution maps. There is also the potential for additional chapters to be included in the Atlas where this value-added information could be discussed.

## **7. Species List**

A draft list of species was prepared by Friederike Spitzenberger (AUT) and circulated in advance of the meeting. This will be updated to reflect the agreed geographic scope. There has already been significant email traffic on some taxonomic groups and Jan Zima (CZ) made a proposal for how some of the issues raised could be resolved i.e. that sibling species with distinct distributions can be shown on the same map with text provided to elaborate on the distribution and taxonomic issues. This was agreed as a good way forward.

It was also agreed that mapping would be at the species level with sub-species referred to in the text where relevant.

There was some discussion on the inclusion of marine species. The 1<sup>st</sup> edition did not include them but some countries had indicated in advance of the meeting that they should be considered. The challenges involved in incorporating them were discussed. It was agreed that a separate group of experts would be required to engage with the project to make their inclusion viable. A different mapping resolution may also be needed. Additional geographic boundaries would also have to be defined. It was agreed that it would be unacceptable for the Atlas project to be delayed by the inclusion of marine species. It was also suggested that it might be worth considering a 2<sup>nd</sup> volume to cover the cetaceans. It was proposed that a feasibility study be undertaken by a small group of delegates to determine whether there was an appetite and willingness amongst European marine mammalogists to take this idea forward. Laurent Schley (LUX) reported that Pierre Gallego, a Cetacean expert based in Luxembourg has offered to perform such a study and report back to the group.

It was agreed that domesticated forms of wild species would not be included in the Atlas. Alien/escaped species will only be included where they have established self-sustaining populations in the wild. An inclusive approach will be taken for vagrants with the text used to explain their status where appropriate. In general, the same approach will be taken as for the 1<sup>st</sup> edition, but the guidance for country coordinators will be improved.

## **8. Time period**

Various time periods were discussed, with the addition of one extra time period following immediately from the time periods for the 1<sup>st</sup> edition being favoured. It was agreed that data collation should be the first priority and that the time periods to represent on the maps could be determined later, as the primary data will all have a better date resolution than needed for our atlas.

## **9. Data management and ownership**

It was agreed that the Mammal Atlas database should not hold any primary data, as the project, or the Societas Europaea Mammalogica (SEM) does not have the resources to maintain or curate such data. Data will have to be supplied from other sources at the resolution needed for our atlas. Ownership of the data will be retained by the primary sources and not the Mammal Atlas. Ideally data will be provided by each country from a national database, but the potential for European portals to hold relevant data was also mentioned. Where a central database is not available, the role of national coordinators to collate data from various sources (regional databases, citizen science projects, museum records, published data, species group databases etc.) was discussed. Further work on this issue will be needed. An example data scheme is illustrated in Appendix 4.

## **10. Ways of working.**

The role of the country coordinators was outlined by TMJ. This approach worked well for the 1<sup>st</sup> Atlas and it was agreed to use the same approach again. The Steering Group will follow up with mammal contacts in all countries where available after the meeting with a view to identifying 1

or 2 coordinators for each participating country. A brief document describing the role of the data coordinator will also be prepared.

The role of the Steering Group was discussed. From the original membership the following have agreed to be involved in the 2<sup>nd</sup> edition: Tony Mitchell Jones (UK), Giovanni Amori (IT), Friederike Spitzenberger (AUT), Jan Zima (CZ), Vladimir Vohralík (CZ), Boris Kryštufek (SLO). Three new members were co-opted onto the Steering Group: Andrey Lissovsky (RUS), Laurent Schley (LUX) and Ferdia Marnell (IRL). Further members may be added by invitation in future, though the group should not get too large.

## **11. Authorship and acknowledgements**

The scheme outlined in the 'Notes on the Agenda' was considered acceptable. This is:

- Volume editors: the Steering Group – those that have contributed the most over the life of the project.
- A chapter for each country titled 'Mammal recording in ...' (or similar), authored by the coordinator(s) for that country and including whatever acknowledgements they wish.
- Species accounts authored by an acknowledged authority (or perhaps 2) for that species, managed and edited by a member of the Steering Group/Editorial Committee. If needed, peer-reviewers can be acknowledged.
- Other chapters, such as common names in the languages of Europe, could be authored by volunteers.

There will also be the opportunity to acknowledge and thank anyone else involved in the preparation of the atlas.

As this project will continue for a number of years, it is inevitable that some individuals will leave and others join. The Steering Group must take on responsibility for the final list of editors at the time of publication.

## **12. Species accounts**

The 1<sup>st</sup> edition was not published in full colour and so line drawings were included instead of photos for the individual species accounts. It was agreed that photos would be preferable this time but that there would be financial implications. TMJ agreed to follow this up with the publisher. It was agreed that a clearly defined template would be circulated to all authors for the species accounts to ensure consistency of approach and to minimise subsequent editing. Further development of the format of the species accounts could await future meetings, as they would not be needed for several years.

## **13. Publication options**

The 1<sup>st</sup> edition was published by T & A D Poyser. TMJ has already had preliminary discussion with the former editor there to develop discussions with possible publishers of the 2<sup>nd</sup> Edition. These discussions will continue. For the 1<sup>st</sup> edition, significant contributors (Steering Group, country coordinators, authors) were given a copy of the atlas in recognition of their efforts. This approach should form part of any future publication contract.

#### **14. Time schedule**

The proposed publication year of 2024 was discussed; it would be the 25<sup>th</sup> anniversary of the 1<sup>st</sup> edition. It was agreed that this was ambitious for some countries but that overall it was achievable. Further examination of cut-off points leading up to that date will be needed e.g. the deadline for data collection; the deadline for species accounts etc. It was agreed that the first priority was to appoint country coordinators to get data collection/collation underway. A tentative timeline for the atlas, developed from discussions at the meeting, is included as Appendix 5

#### **15. Financial support**

It was agreed that some countries will need more financial support than others and that in general the priority should be to support data collection and collation in those countries which have been added for the 2<sup>nd</sup> edition. A second priority would be to support this work in countries without a national database or atlas.

Potential sources of funding were mentioned including the EU COST programme, Private Funds (e.g. from Wildlife Trusts/Charities), other EU funds. A small sub-group was formed to explore these opportunities further and a report will be circulated in due course.

In order to apply for funds, it would be helpful to have an officially registered body to do this, so TMJ undertook to see what would be needed to make the Societas Europaea Mammalogica fit for this purpose. With the recent decision by the UK to leave the EU, some thought should be given to whether it would be better for fundraising purposes to have the SEM registered in an EU country.

#### **16. Next steps**

The first priority is to establish a network of country coordinators and TMJ, with other members of the Steering Group, will begin discussions with collaborators in each country. Other urgent issues include the identification of the resource requirements of individual countries and the identification of potential funding sources. A project plan will be needed to assist with funding bids and this will be prepared by the Steering Group.

TMJ announced that a Steering Group meeting for the new Atlas would be held immediately after the Introductory Meeting. He also promised to prepare and circulate a report of the meeting.

## Appendix 1: Attendees at the Rome meeting, November 2016

<b>Country</b>	<b>Contact</b>	
Austria	Friederike Spitzenberger	
Belarus	Irina Solovej	
Bulgaria	Nedko Nedyalkov	
Croatia	Nikola Tvrtković	
Czech Republic	Jan Zima	
Czech Republic	Vladimír Vohralík	
Denmark	Hans Baagøe	
Denmark	Thomas Secher Jensen	
Finland	Eeva-Maria Kyheröinen	
Finland	Ulla-Maija Liukko	
Germany	Peter Boye	
Greece	George Mitsainas	
Ireland	Ferdia Marnell	
Italy	Giovanni Amori	
Italy	Anna Loy	
Luxembourg	Laurent Schley	
Netherlands	Dennis Wansink	
Netherlands	Hans Hollander	
Netherlands	Svetlana Miteva	
Portugal	Carlos Fonseca	
Portugal	Maria da Luz Mathias	
Romania	Alexandra Sallay	
Romania	Atila Sandor	
Romania	Zsolt Hegyeli	
Russian Federation	Andrey A. Lissovsky	
Russian Federation	Boris Sheftel	
Slovenia	Boris Kryštufek	
Turkey	Mustafa Sözen	
Ukraine	Andriy-Taras Bashta	
Ukraine	Anton Vlaschenko	Friday only
Ukraine	Kseniya Kravchenko	Friday only
United Kingdom (GB)	Tony Mitchell-Jones	
Israel/Russia	Georgy Shenbrot	

## Appendix 2: Responses from questionnaires and discussions with contacts.

Please note that the wording in 'status' is not consistent and will be improved.

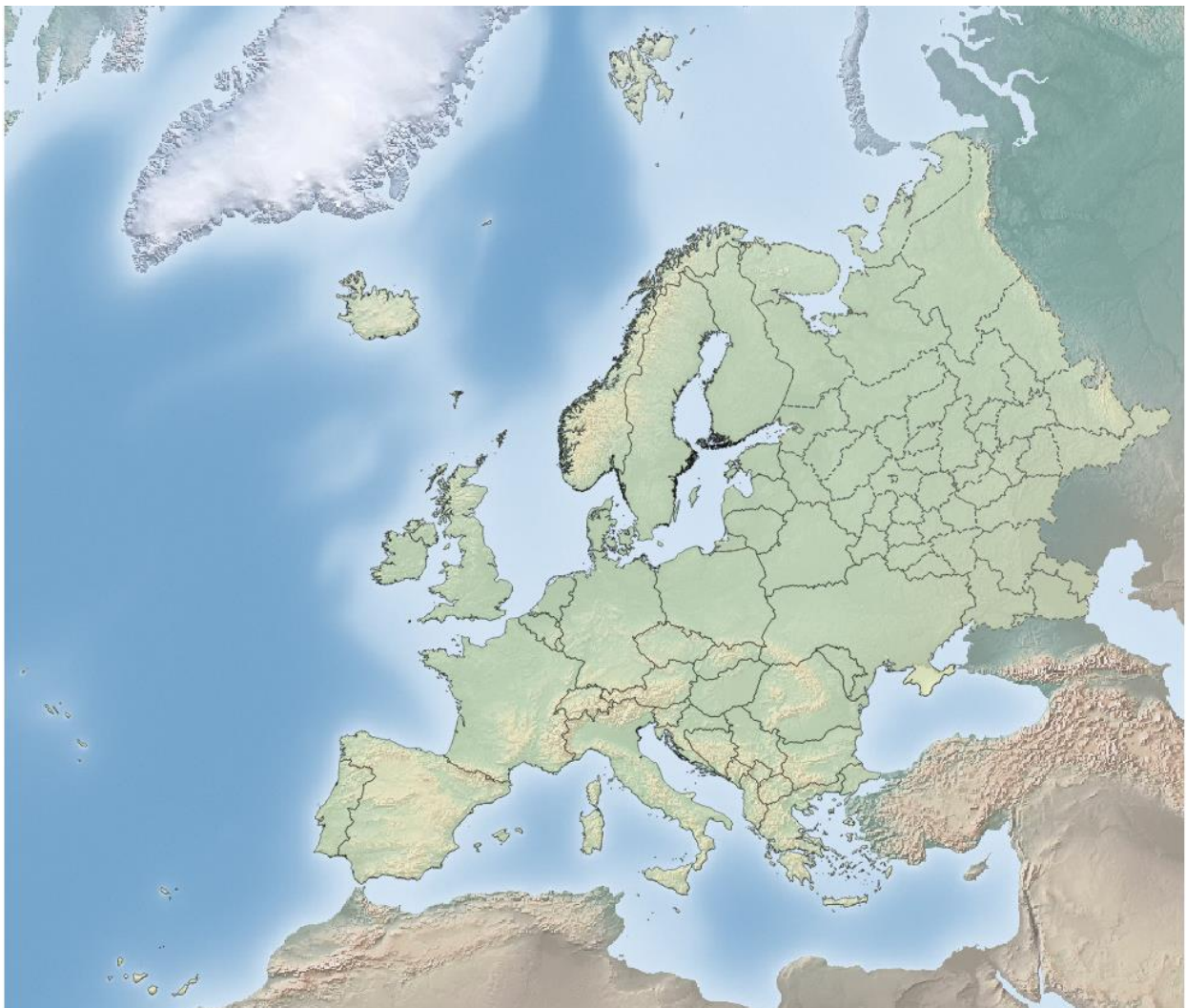
<b>Territory</b>	<b>Status</b>
Albania	No national atlas or database; Will collaborate and contribute.
Andorra	no contact
Austria	Dataset held by FS. Will collaborate and contribute
Belarus	No database or atlas. Will collaborate & contribute
Belgium	Have database and atlas. Will collaborate and contribute
Bosnia & Herzegovina	Will collaborate and contribute. May need funding.
Bulgaria	Will collaborate and contribute
Croatia	Will collaborate and contribute
Czech Republic	Have database and atlas. Will collaborate and contribute
Denmark	Have atlas. Will collaborate and contribute
Estonia	One individual offer of collaboration; hoping to hear from their Mammal Society
Faroe Islands	no contact
Finland	Will collaborate and contribute
France	Will collaborate and contribute. Have atlas in preparation
Germany	Need national contact to respond. Offers of collaboration from some Länder
Greece	Many individual experts willing to collaborate and contribute
Holy See (Vatican)	no contact
Hungary	Will collaborate and contribute
Iceland	Will collaborate and contribute
Ireland	Have database and atlas (almost published). Will collaborate and contribute
Italy	Have atlas. Will collaborate and contribute
Latvia	Will collaborate and contribute
Liechtenstein	Will collaborate and contribute
Lithuania	New atlas in prep. Will collaborate and contribute
Luxembourg	Have good data. Will collaborate and contribute
Macedonia	Interested to collaborate; no atlas or database
Malta	New atlas project. Will collaborate and contribute
Moldova	Interested to collaborate and contribute. May need external assistance.
Monaco	
Montenegro	One contact. No database or atlas
Netherlands	Have database and atlas. Will collaborate and contribute
Norway	Have database and atlas. Will collaborate and contribute
Poland	Current atlas and database project. Will collaborate and contribute
Portugal	Will collaborate and contribute
Romania	Will collaborate and contribute
Russian Federation	Will collaborate and contribute.
San Marino	Will collaborate and contribute
Serbia	Will collaborate and contribute
Slovakia	Awaiting response.
Slovenia	No database or atlas. Will collaborate & contribute

Spain	Have database and atlas. Will collaborate and contribute
Sweden	Have database and atlas. Will collaborate and contribute
Switzerland	Have database and atlas. Will collaborate and contribute
Turkey (European)	Contact with some specialists. Will collaborate and contribute.
Ukraine	Some contacts with specialists. Will collaborate and contribute. Some data available
United Kingdom (GB)	Have database and atlas. Will collaborate and contribute



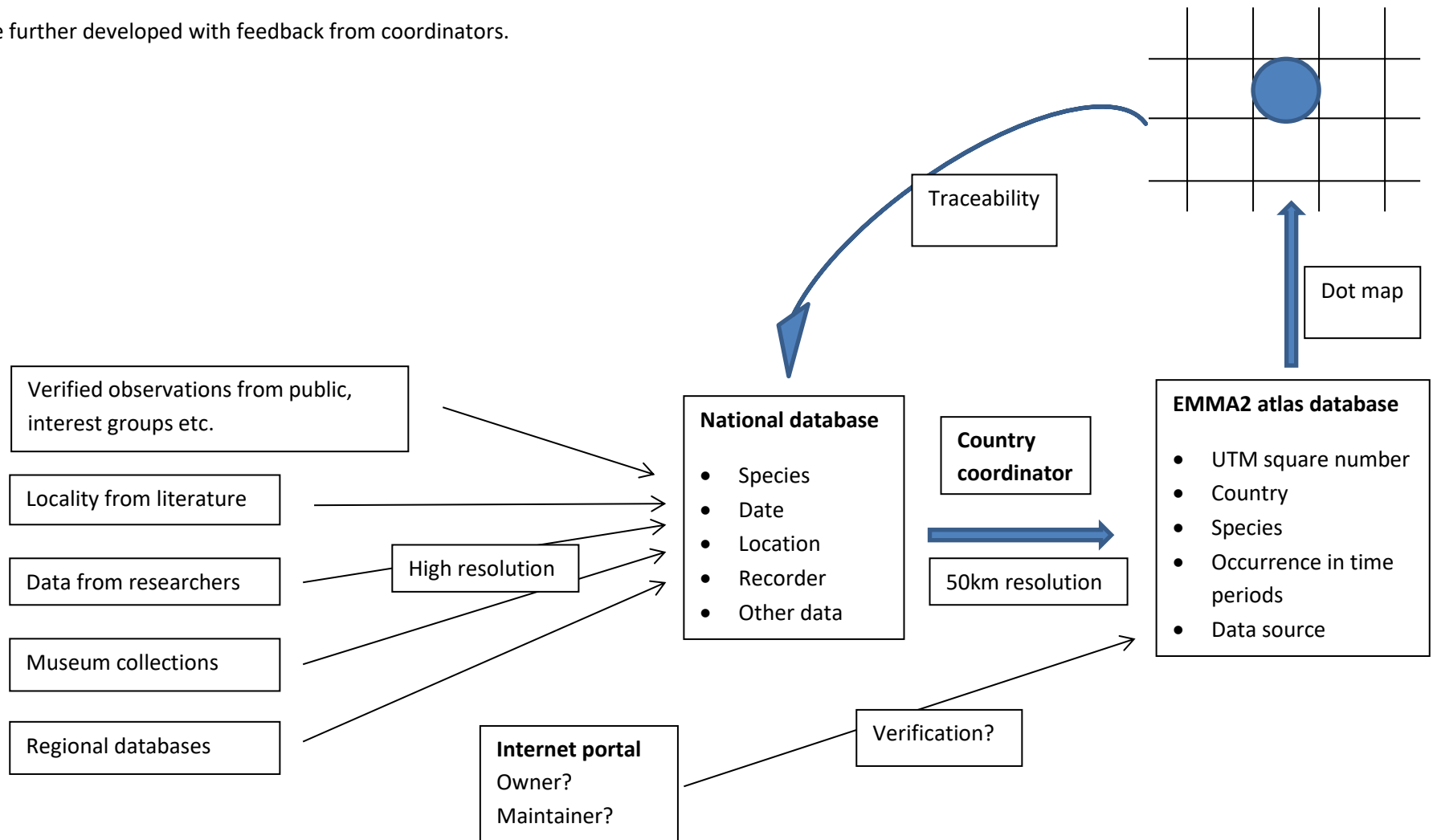
### **Appendix 3: The borders of geographic Europe for the EMMA2 project**

The area includes the whole area that was mapped in the 1<sup>st</sup> Edition, together with the Russian Federation, Ukraine, Belarus and Moldova. Within Russia, the border follows the nearest administrative border to the crest of the Urals, the border with Kazakhstan and the administrative borders within the Kuma-Manych Depression between the Caspian and Black Seas.



#### Appendix 4: example data scheme

This will be further developed with feedback from coordinators.



**Appendix 5: Tentative timeline for the EMMA2 project**

