

10th Meeting of the Advisory Committee

Bratislava, Slovak Republic, 25 – 27 April 2005

Report of the IWG on Transboundary Programme – Habitats: Data Compilation



Since the last AC meeting, datasets have been submitted by Bulgaria and Ukraine and some amendments to the original data submitted by Poland and Ireland have been made. Parties submitting no data are Albania, Belgium, Denmark, France, Latvia, Macedonia, Malta, Moldova, Monaco, Netherlands and Sweden. Finland and Luxembourg have indicated that they have no significant underground sites for bats. At AC9, the decision was taken to close the list at the beginning of 2005, but the submission of two important datasets after this time suggests that there may still be lists in preparation.

Site database

As at 19/4/05, the database contains information about 1066 sites, as shown in Table 1.

Party / Range state	Number of sites
Austria	70
Bulgaria	54
Croatia	57
Czech Republic	62
Estonia	63
Georgia	2
Germany	292
Hungary	76
Ireland	13
Lithuania	5
Norway	19
Poland	103
Portugal	32
Romania	9
Russian Federation	13
Slovak Republic	65
Slovenia	46
Ukraine	43
United Kingdom	42
TOTAL	1066

Table 1. Contributions to the database. Parties are shown in **bold**.

For the majority of sites, geographic coordinates are available, making it possible to prepare a map showing the location of these sites across Europe (Figure 1).

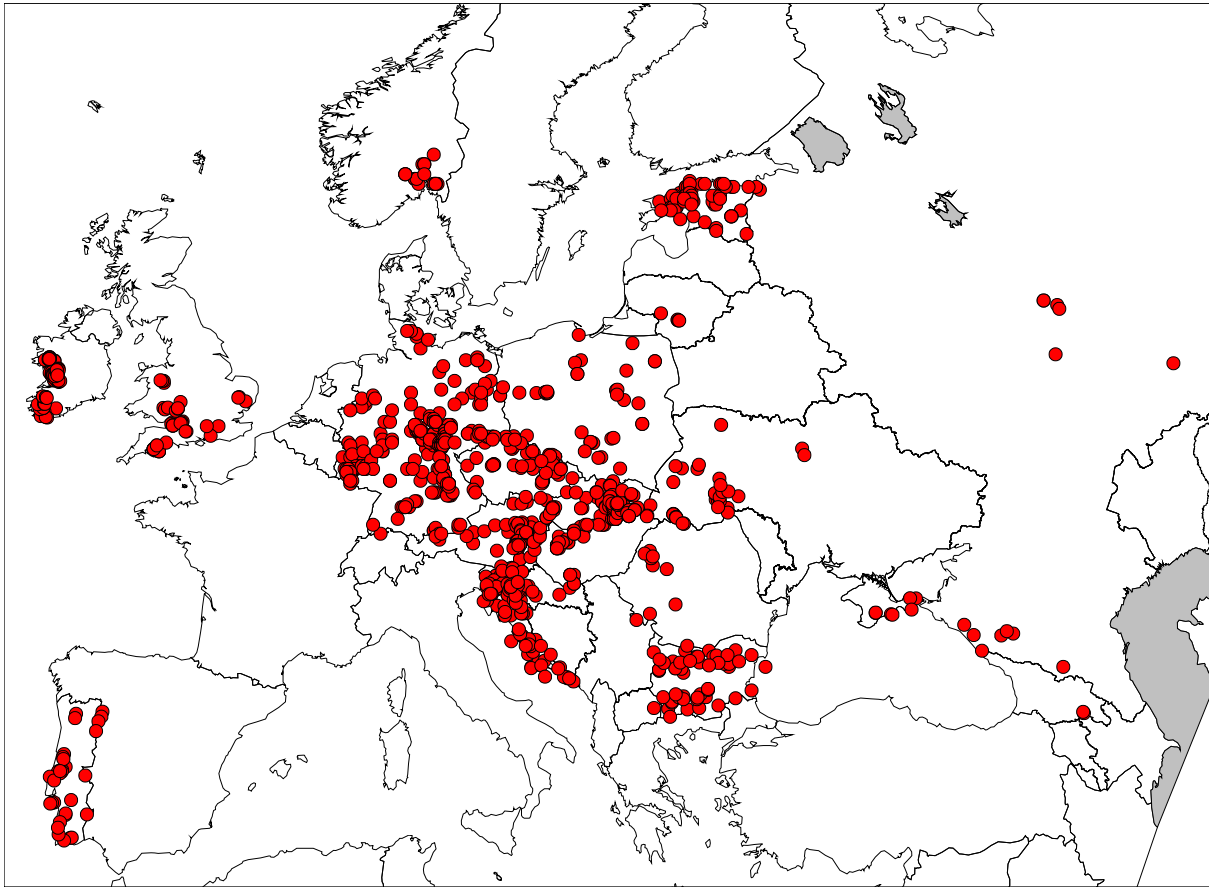


Figure 1. Underground sites with geographic coordinates

Species composition

Although the species composition is not available for every site (some data were submitted as the number of species recorded without identifying exactly which ones), a breakdown of the number of sites for which each species is recorded is shown in Table 2.

Species	No of Sites	Largest count
<i>Rhinolophus hipposideros</i>	397	1514
<i>Rhinolophus ferrumequinum</i>	255	1600
<i>Myotis myotis</i>	160	18668
<i>Miniopterus schreibersii</i>	134	120000
<i>Barbastella barbastellus</i>	108	7000
<i>Myotis emarginatus</i>	104	4500
<i>Myotis daubentonii</i>	100	8175
<i>Myotis nattereri</i>	99	3646
<i>Rhinolophus euryale</i>	98	5000
<i>Plecotus auritus</i>	86	1482
<i>Myotis blythii</i>	69	6000
<i>Myotis mystacinus</i>	57	138

Species	No of Sites	Largest count
<i>Myotis capaccinii</i>	55	50000
<i>Myotis myotis/blythii</i>	52	8000
<i>Myotis bechsteinii</i>	50	21
<i>Plecotus austriacus</i>	49	13
<i>Eptesicus serotinus</i>	47	31
<i>Myotis brandtii</i>	40	284
<i>Myotis dasycneme</i>	35	498
<i>Rhinolophus mehelyi</i>	29	5000
<i>Eptesicus nilssonii</i>	29	107
<i>Pipistrellus pipistrellus</i>	16	750
<i>Myotis</i> sp.	9	13
<i>Nyctalus noctula</i>	6	300
<i>Rhinolophus blasii</i>	5	3000
<i>Pipistrellus</i> sp.	2	45
<i>Hypsugo savii</i>	2	1
<i>Plecotus</i> sp.	2	6
Unidentified	1	36
<i>Pipistrellus kuhlii</i>	1	0
<i>Pipistrellus nathusii</i>	1	3
<i>Vespertilio murinus</i>	1	1
<i>Myotis mystacinus/brandtii</i>	1	99

Table 2. Number of sites per species and the largest site count

Perhaps as expected, the widely distributed species that are particularly dependent on underground sites are at the top of the table and those species that only occur occasionally underground are at the bottom. We suggest that for monitoring purposes those species that are not considered dependent on underground sites and occur in few sites (perhaps less than 20) are discounted.

Number of bats

The submission of a site list by Bulgaria has had a significant effect on the list of sites with the largest number of bats. Table 3 includes all sites with more than 5000 bats counted. As can be seen, *Miniopterus schreibersii* forms the largest aggregations, so sites used by this species, which are mostly in south-east Europe, dominate the list. The *Myotis* species *capaccinii* and *myotis* form the next largest aggregations, though *M. daubentonii* and *Barbastella barbastellus* also appear within the top 20 sites. *Rhinolophus* species, which are considered dependent on underground sites, appear in the largest number of sites (see Table 2), but do not form such large aggregations of individuals.

Site_name	Country	Scientific name	Max_count	Usage
Djavolskoto Garlo cave	Bulgaria	Miniopterus schreibersii	120000	Hibernation
Parnicite cave	Bulgaria	Miniopterus schreibersii	65000	All year
Devetashkata cave	Bulgaria	Miniopterus schreibersii	60000	All year
Parnicite cave	Bulgaria	Myotis capaccinii	50000	All year
Huda lui Papara cave	Romania	Miniopterus schreibersii	33000	Hibernation
Kustrovka cave	Croatia	Miniopterus schreibersii	30250	Hibernation
Visticina pit	Croatia	Miniopterus schreibersii	20000	Hibernation
Marvao I	Portugal	Miniopterus schreibersii	20000	All year
Nietoperek (Iubuskie)	Poland	Myotis myotis	18668	Hibernation
Troeuvatica cave	Bulgaria	Miniopterus schreibersii	16000	Maternity
Figueira Castelo Rodrigo	Portugal	Miniopterus schreibersii	12000	All year
Golashkata peshtera cave	Bulgaria	Miniopterus schreibersii	11000	All year
Jarasa-Iini cave	Bulgaria	Myotis myotis	10000	Maternity
Ivanova Voda cave	Bulgaria	Myotis capaccinii	9000	Hibernation
Kiskőhát-zsomboly	Hungary	Myotis myotis	9000	Hibernation
Jarasa-Iini cave	Bulgaria	Miniopterus schreibersii	9000	Maternity
Nietoperek (Iubuskie)	Poland	Myotis daubentonii	8175	Hibernation
Devetashkata cave	Bulgaria	Myotis myotis/blythii	8000	Maternity
Canyon	Russia	Barbastella barbastellus	7000	Hibernation
Dielik	Slovakia	Barbastella barbastellus	6838	Hibernation
Ivanova Voda cave	Bulgaria	Myotis myotis/blythii	6500	All year
Tradanj cave	Croatia	Myotis blythii	6000	Maternity
Urushka Maara cave	Bulgaria	Miniopterus schreibersii	6000	Maternity
Gabarnika cave	Bulgaria	Myotis capaccinii	6000	Maternity
Miljacka II cave	Croatia	Myotis capaccinii	6000	Maternity
Jarasa-Iini cave	Bulgaria	Myotis capaccinii	6000	All year
Zorovica cave	Bulgaria	Rhinolophus mehelyi	5000	Maternity
Kalna Matnitza	Bulgaria	Miniopterus schreibersii	5000	Maternity
Zorovica cave	Bulgaria	Rhinolophus euryale	5000	Maternity
Pech (Suhi Pech) cave	Bulgaria	Miniopterus schreibersii	5000	Maternity
Astileu Cave	Romania	Myotis myotis/blythii	5000	Maternity
Ponora cave	Bulgaria	Rhinolophus euryale	5000	All year
Hiljadite Ochichki	Bulgaria	Myotis myotis/blythii	5000	Maternity
Marina Dupka cave	Bulgaria	Miniopterus schreibersii	5000	Maternity
Antal-táró	Hungary	Myotis myotis	5000	Maternity
Lednicata cave	Bulgaria	Myotis myotis/blythii	5000	All year
Hiljadite Ochichki	Bulgaria	Miniopterus schreibersii	5000	Maternity
Varkan cave	Bulgaria	Rhinolophus euryale	5000	All year
Moura I	Portugal	Miniopterus schreibersii	5000	All year
Priepast' Čertova diera	Slovakia	Miniopterus schreibersii	5000	Hibernation

Table 3. Sites with 5000 or more bats recorded.

Distribution of species

For sites for which geographic coordinates and species data were available it is possible to map the distribution of species. A selection of maps is shown in Annex 1. For each of the species mapped, the sites have been shaded according to the number of bats recorded.

Next steps

This data collection project has identified a large number of underground sites across Europe that are clearly of great importance as a resource for bats. No doubt many of these sites already have some legal protection, either because bats are legally protected or because the sites are specially protected as nature reserves or Natura 2000 sites.

For EUROBATS, the next steps would appear to be to ensure that these sites are maintained for bats. This will require a system of monitoring and reporting to fulfil two purposes:

1. To confirm that individual sites are still in favourable condition for bats.
2. To contribute to a wider monitoring system for bats across the Eurobats area.

This project should thus provide a building-block for the development of consistent monitoring methodologies, the subject of another intrasessional working group.

We recommend that

- Any monitoring system for bats in underground sites should, wherever possible, include monitoring of the sites in the underground sites database (though it need not be limited to these sites).
- Sites in the database should be monitored at regular intervals to ensure they are in favourable condition for bats. Data collected should be included in Parties' annual reports to the Agreement.
- The AC should encourage and support project that contribute to the maintenance of these underground sites. These may include site protection works as well as educational and monitoring projects.

Tony Mitchell-Jones

Zoltán Bihari

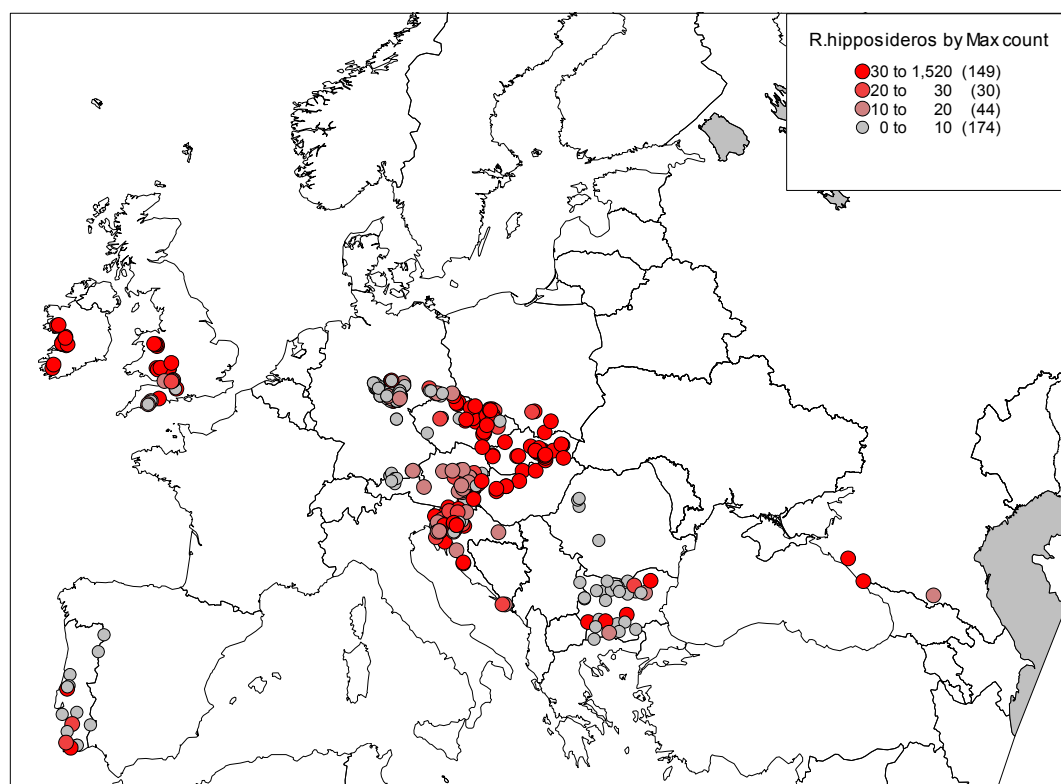
Matti Masing

Luisa Rodrigues

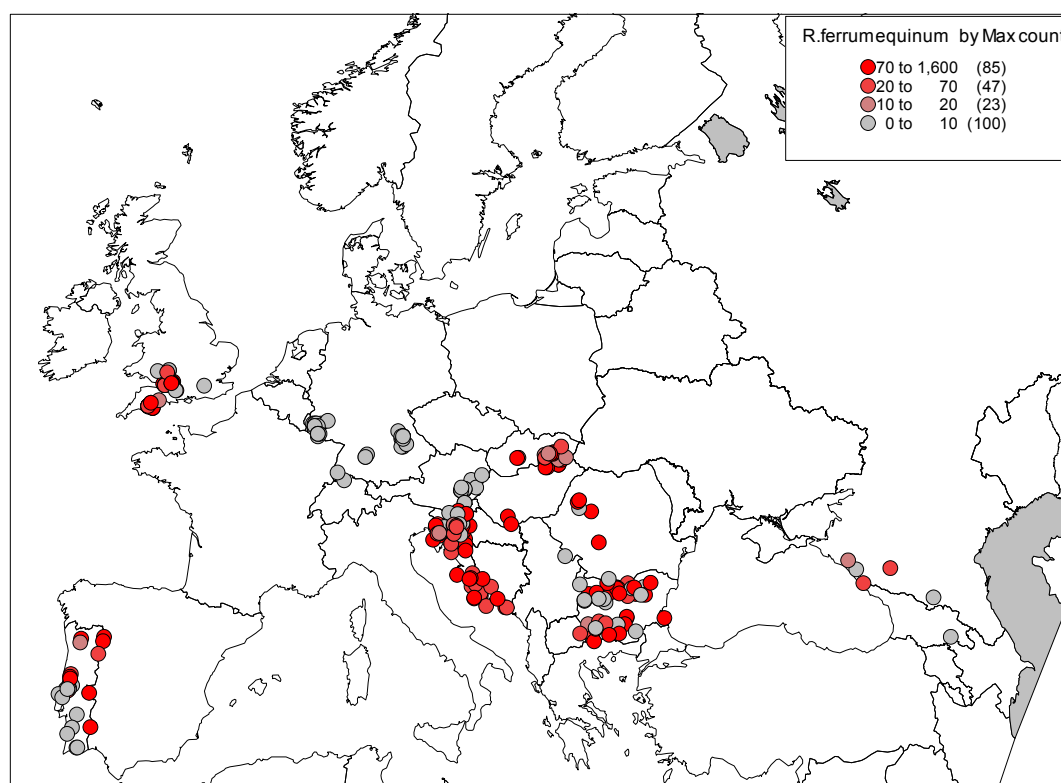
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Annex 1: Species maps

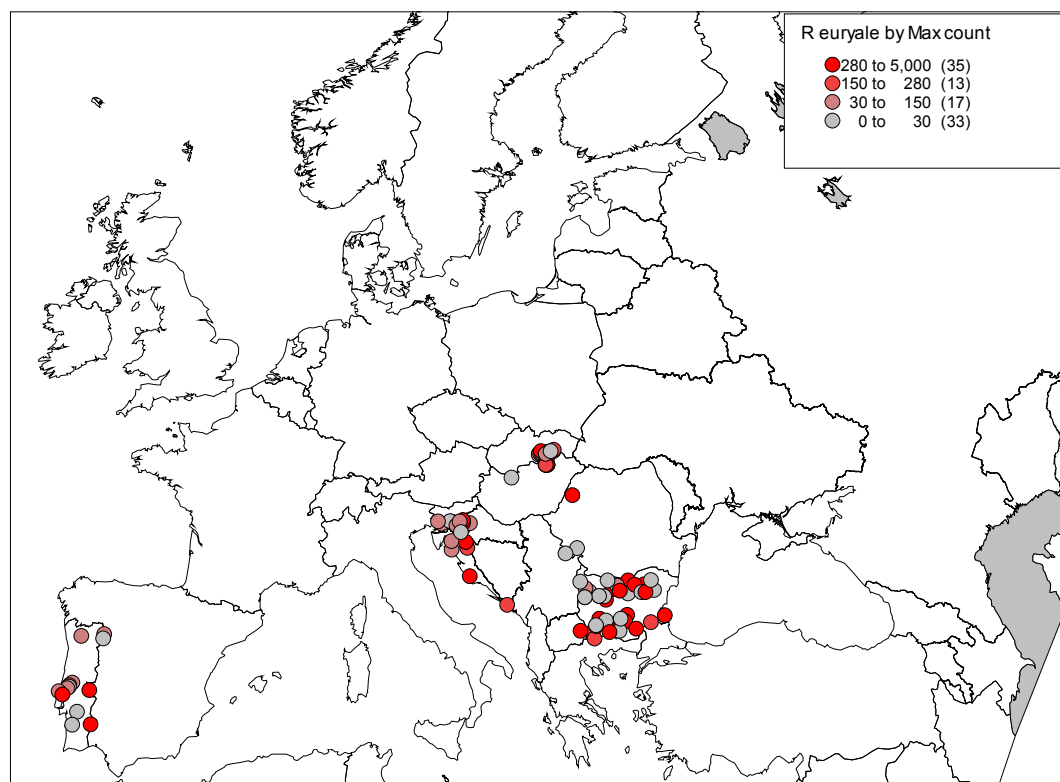
Rhinolophus hipposideros



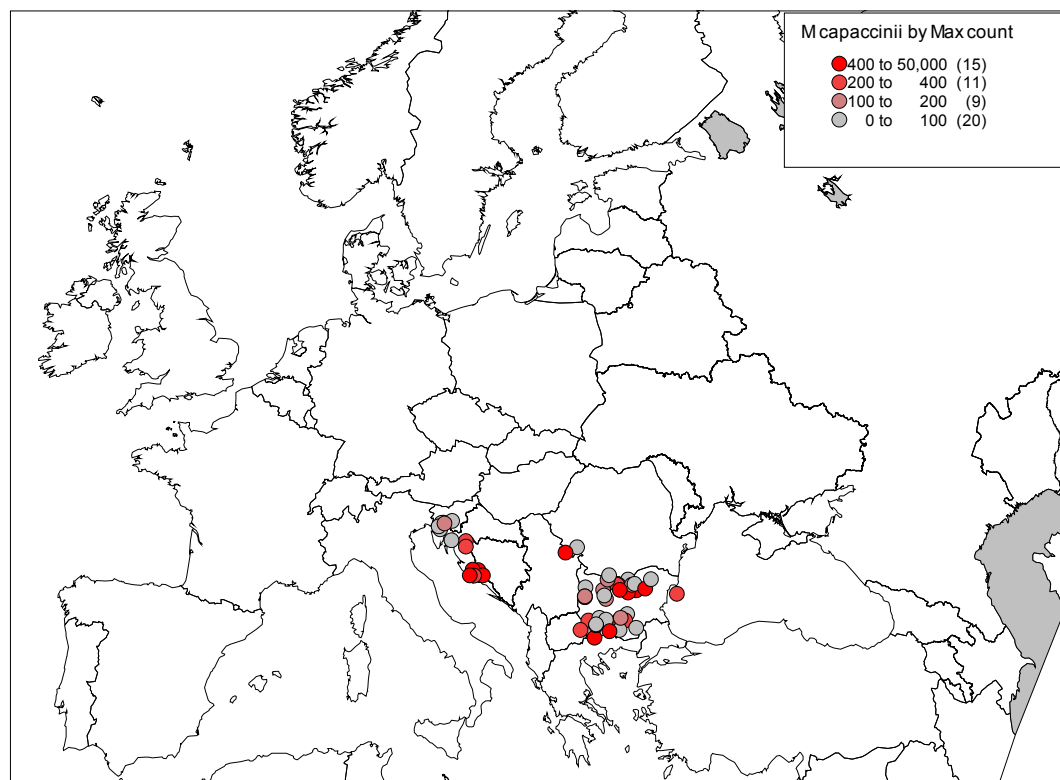
Rhinolophus ferrumequinum



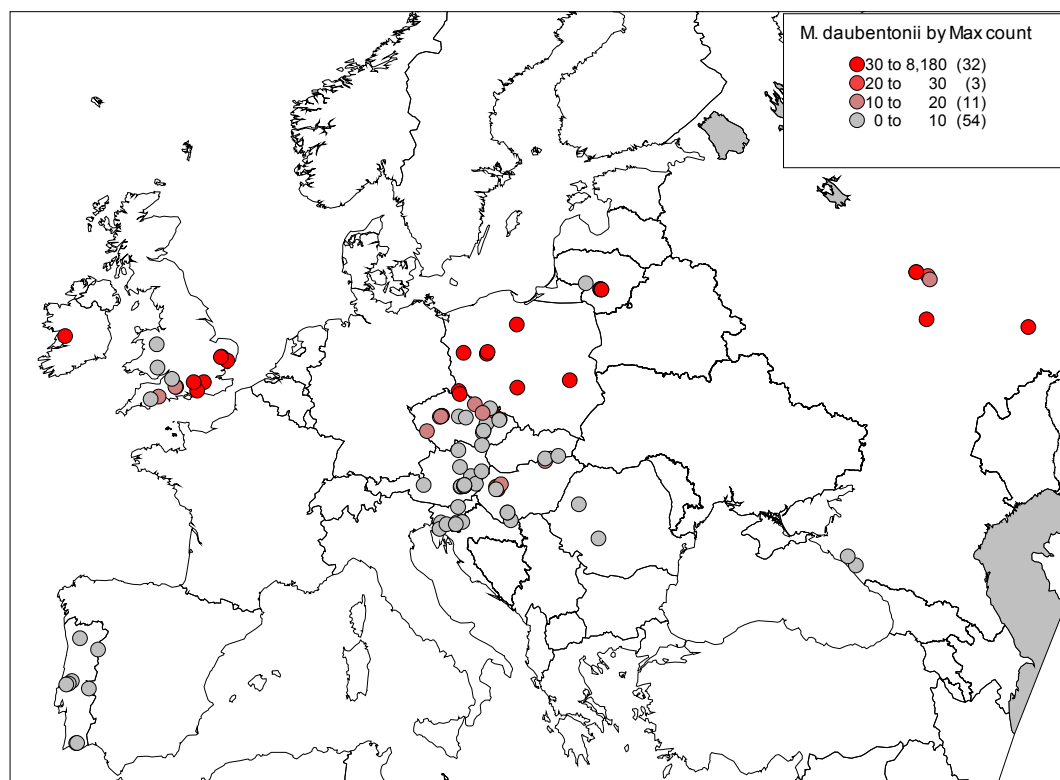
Rhinolophus euryale



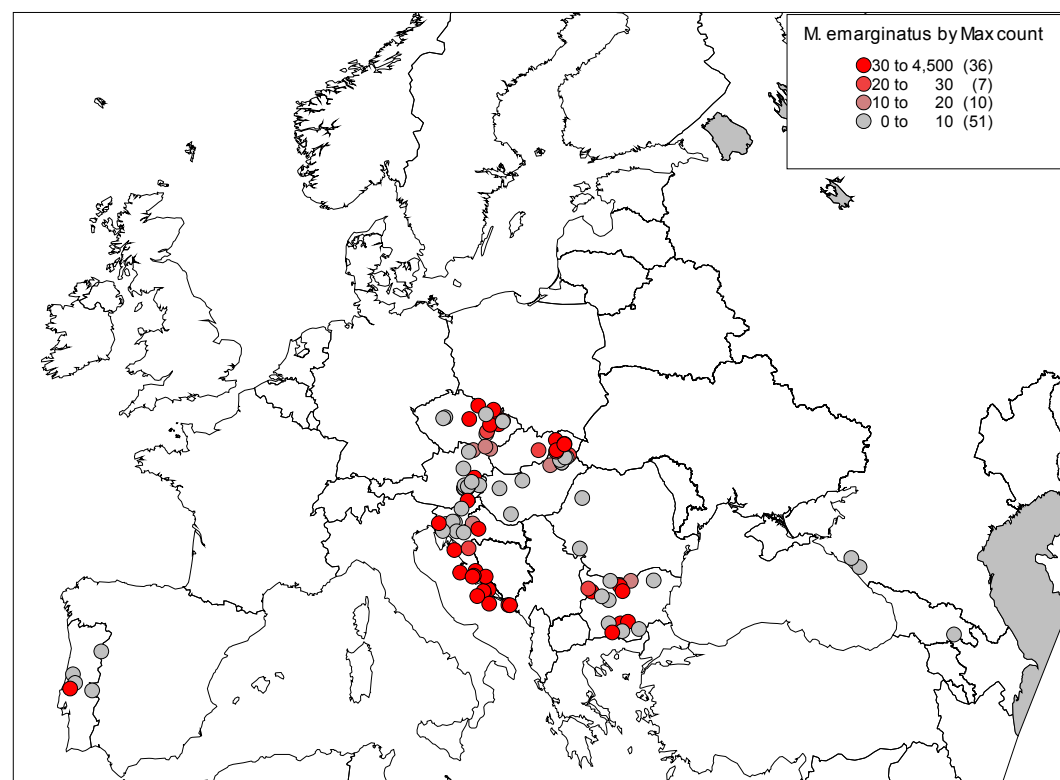
Myotis capaccinii



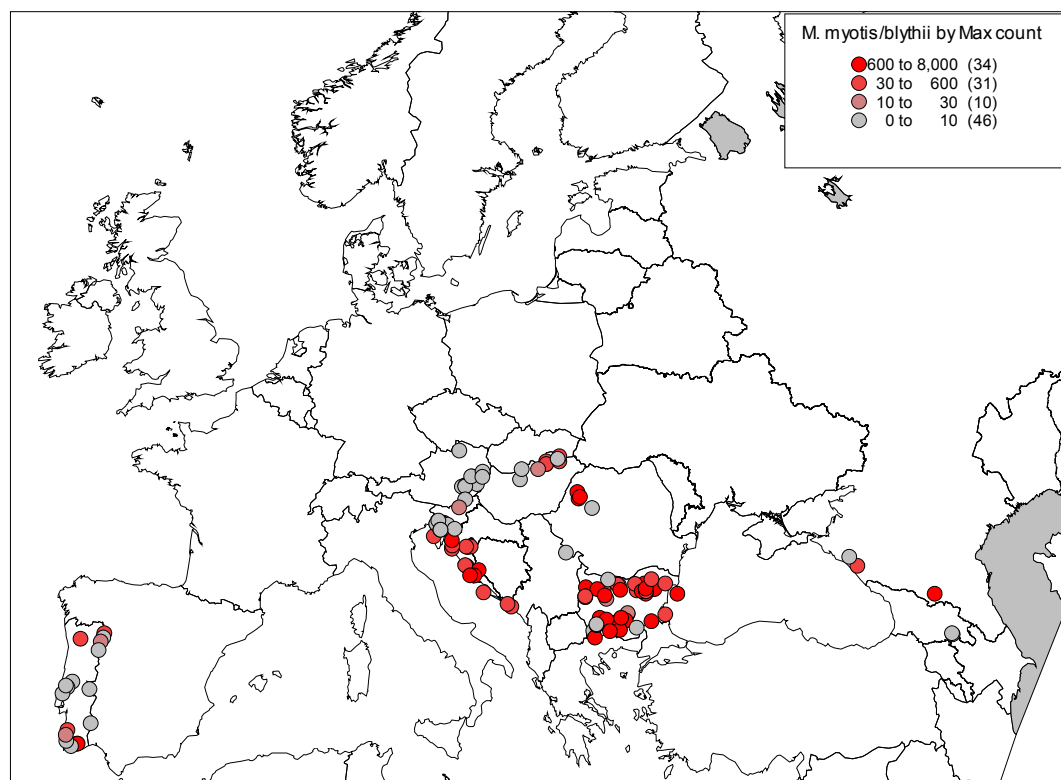
Myotis daubentonii



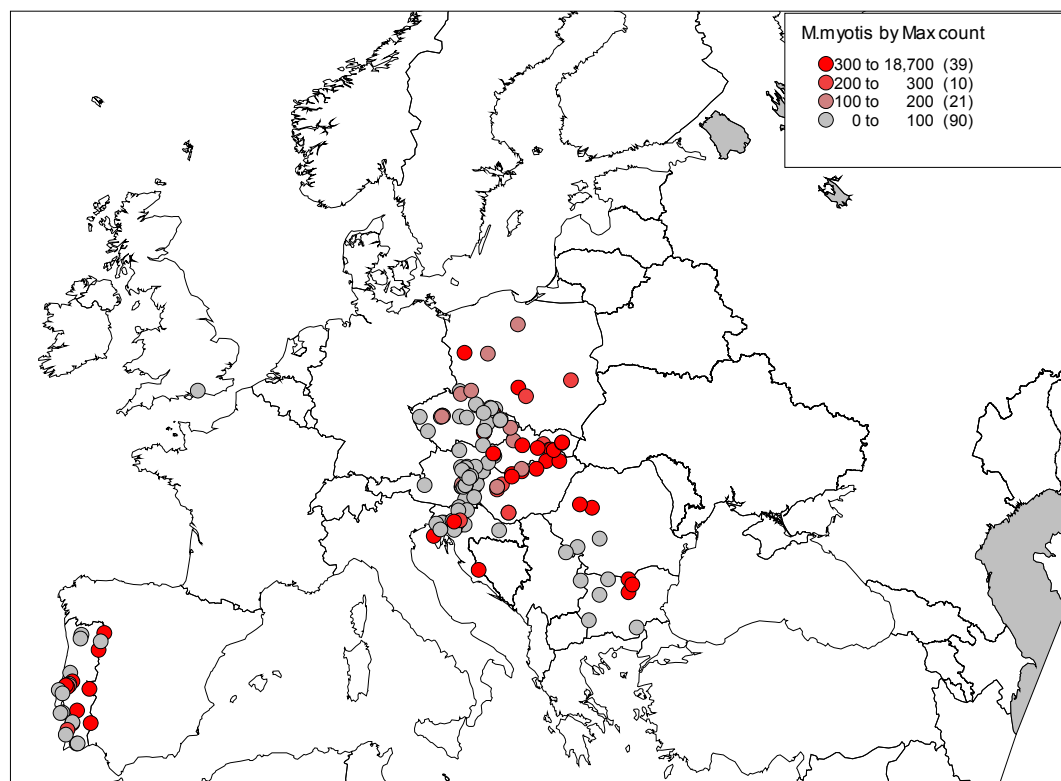
Myotis emarginatus



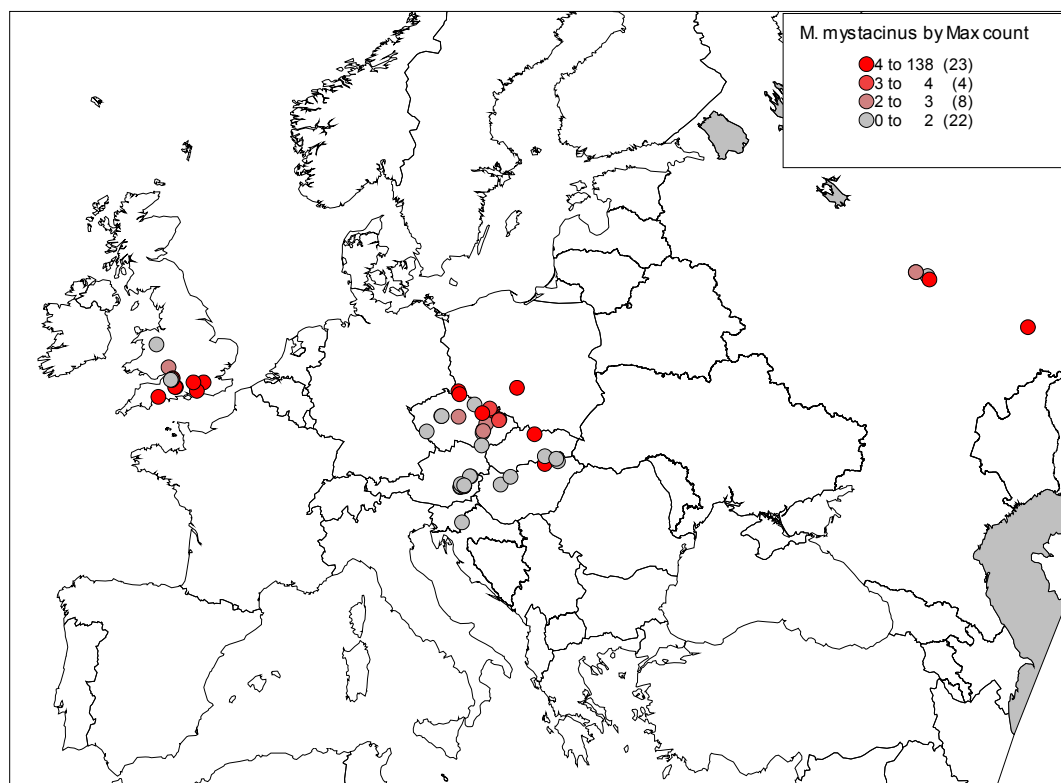
Myotis blythii* & *M. myotis/blythii



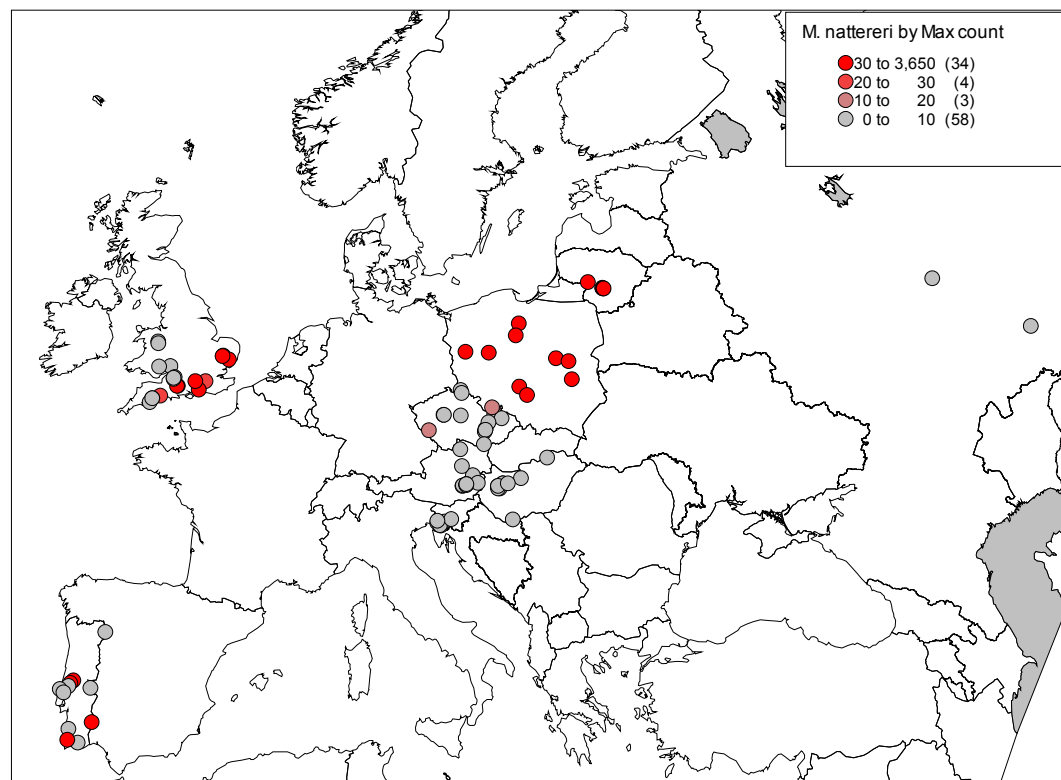
Myotis myotis



Myotis mystacinus



Myotis nattereri



Miniopterus schreibersii

