Detailed draft conclusions on the representation of animal species from Res. No. 6 (1998) of the Bern Convention in proposed Emerald sites in Belarus, the Republic of Moldova, the Russian Federation and Ukraine (Continental, Pannonian and Alpine-Carpathians)

Important Notes:

1. This document includes all species reported present in the countries from Emerald databases (Databases analysed: final delivery 2015) and those species which are probably present according to literature data
2. Glossary:
SUF (Sufficient): the occurrence of the species/habitat type is sufficiently well covered by the current ASCIs; no further sites are required.
IN MIN (Insufficient minor): no new sites are required, but this species/habitat type should be added to the list of qualifying features on one or several of sites that have already been proposed for other species/habitat types.
IN MOD (Insufficient moderate): one or several additional ASCIs (or extensions of ASCIs) must be proposed to achieve a sufficient coverage of the Emerald network for this species/ habitat type (IN MOD GEO means additional site(s) are only required in a specifically named region)
IN MAJ (Insufficient major): none of the sites where this species/habitat type occurs have been proposed as ASCIs so far; in order to achieve a sufficient coverage of the Emerald network for the species/habitat type, one or several of these new ASCIs must therefore be proposed.
SR (Scientific reserve): further research is required to identify the most appropriate ASCIs for this species/habitat type (research on identifying the most appropriate sites, on clarifying the correspondence of a habitat present to the definition of Res. 4 habitats, etc.)
SR Ref List (Scientific reserve on the Reference List): the regular occurrence of this species/habitat type is still uncertain and needs to be confirmed
Delete from Ref List (delete from the Reference List): this species/habitat type is not naturally occurring and will be removed from the Reference List; no sites are required for this species/habitat type
CD (Correction of data): the information about this species/habitat type in the Standard Data Form needs to be corrected/completed/deleted

Codes can be combined, for example 'IN MOD/ CD' would indicate that additional sites are required and that the existing proposals need correcting or completing.

The field "pop-permanent" represents a summary of the individual data records for a given species. As this type of information is still largely missing in the database, the field remains empty for almost all species.

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
				Mammals				
1303	Rhinolophus hipposideros	MD	CON	1	(1C)	p(0- 0i)	Munteanu et al. (2013) suggests a wider distribution in the north-east, centre, and one location in north-west at Prut. However, the status of these locations are not very clear, i.e. whether these are colonies or single sightings (?).	IN MOD?
1303	Rhinolophus hipposideros	UA	ALP-Car	13	(4B 4C 5D)		Sites cover most of the region, may be except south-west corner. Is it an important gap (Red Book suggests presence also in this area)? Is there any guess what population % is under the network? SDFs give a very approximate guess: 8-68%). Usually such information can be easily obtained for bats as colonial species?	Probably SUF?
1303	Rhinolophus hipposideros	UA	CON	12	(4B 2C 6D)		Proposed sites generally cover the localities indicated in the Red Book. Any clue about % of population under Emerald?	Probably SUF?
1303	Rhinolophus hipposideros	UA	PAN	2	(2B)		Probably sufficient, but are there any important sites left out in the centre of the region (Red Book indicates presence here)?	?
1304	Rhinolophus ferrumequinum	MD	CON	2	(1A 1C)	p(14- 20i)	Location suggested by Munteanu et al. (2013) seem to be covered. But is it a valid observation (?): IUCN shows no presence in MD_CON.	Probably SUF?
1304	Rhinolophus ferrumequinum	UA	ALP-Car	5	(2B 3C)		Proposed sites match with the distribution given in the Red Book. Any clue of % population covered? SDF: only 6-53%, but is this true?	Probably SUF?
1304	Rhinolophus ferrumequinum	UA	PAN	2	(1B 1C)		Probably sufficient, but are there any important sites left out in the centre of the region (Red Book indicates presence here)?	?
1307	Myotis blythii	MD	CON	1	(1B)	p(100- 150i)	Current site proposal clearly insufficient if compared with distribution given in Munteanu et al. (2013), e.g. there a many grids along the eastern border. 1'B' also suggests that there should be more localities included.	IN MOD?
1307	Myotis blythii	UA	ALP-Car	2	(1B 1C)		Current sites generally match with the localities given in Red Book. Any clue of % population covered?	Probably SUF?

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1307	Myotis blythii	UA	CON	0			Red Book (and IUCN) suggest presence in ~ south of Vinnitsa oblast.	IN MAJOR?
1307	Myotis blythii	UA	PAN	1	(1C)		Current sites generally match with the localities given in Red Book. Any clue of % population covered?	Probably SUF?
1308	Barbastella barbastellus	BY	CON	4	(2A 2D)		All sites included, according to Red Book? [BY_BOR:SUF]	Probably SUF?
1308	Barbastella barbastellus	MD	CON	1	(1A)	p(70- 80i)	The only location suggested by Munteanu et al. (2013) seem to be covered.	Probably SUF?
1308	Barbastella barbastellus	UA	ALP-Car	8	(3B 5C)		Current sites correspond to the localities given in Red Book and in Kovalyova & Taraborkin (2001) and more. Numbers in each locality small, even down to 1 individual, but overall population coverage, judging from SDF, quite good.	Probably SUF?
1308	Barbastella barbastellus	UA	CON	27	(17B 4C 6D)		Red Book and Kovalyova & Taraborkin (2001) indicates presence also in centre, i.e. Cherkassy, Kirovograd oblasts? Bashta (2012) also suggests that some of larger colonies are outside the network.	IN MOD?
1308	Barbastella barbastellus	UA	PAN	2	(1B 1C)		Probably sufficient, but are there any important sites left out in the centre of the region (Red Book indicates presence here)?	?
1310	Miniopterus schreibersi	UA	ALP-Car	2	(1B 1C)		What is the status of this species in the region and UA as whole? According to Krocko & Kovtun (1998), became rare or even disappeared after 1970-ies. Any new information after 1998? More time for specific studies necessary?	? SR?
1310	Miniopterus schreibersi	UA	PAN	1	(1C)		What is the status of this species in the region and UA as whole? According to Krocko & Kovtun (1998), became rare or even disappeared after 1970-ies. Any new information after 1998? More time for specific studies necessary?	? SR?
1318	Myotis dasycneme	BY	CON	7	(1A 3C 3D)		All sites probably covered, according to Red Book, but is this source updated? IUCN map, as well as Lithuania, Polish, Ukrainian sites at BY border may indicate a wider presence in the region? [BY_BOR:IN MOD]	?

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1318	Myotis dasycneme	MD	CON	5	(5C)	p(0- 0i)	Munteanu et al. (2013) suggest a wider distribution along north-east border where there are no sites (there are also some UA sites suggesting a need for a network connectivity). Present in more existing sites?	IN MOD/IN MIN?
1318	Myotis dasycneme	RU	CON	16	(16C)		According to sevin.ru, occurs much across all reagion. Red-listed in many oblasts. But no sites in Bryansk (RB), Kaluga (RB), Kursk (RB), Ryazan (RB). Also in other oblasts sites not numerous and do not cover a significant territory. [RU_BOR:IN MOD]	IN MOD?
1318	Myotis dasycneme	UA	ALP-Car	3	(1B 2D)		There is a significant discrepancy between current Emerald proposals and localities given in the Red Book. The latter shows only one location in the west (covered by the 'blue' site). If this is a new information, then probably sufficient, as no other reference map is fiend (IUCN is very robust and covers all the western Ukraine).	?
1318	Myotis dasycneme	UA	CON	16	(7B 5C 4D)		Red Book (if the information is correct, of course) suggests a wider distribution in the north-east, e.g. North of Kiev oblast, Chernihiv, Poltava oblasts. Can be found in already existing sites?	IN MOD/IN MIN?
1318	Myotis dasycneme	UA	PAN	1	(1B)		There is a significant discrepancy between current Emerald proposals and localities given in the Red Book. The latter suggests that not present in UA_PAN. However, the sites in bordering countries rather incline to believe Emerald proposals. Is this correct? Probably sufficient if all the known sites included.	?
1321	Myotis emarginatus	UA	ALP-Car	2	(1B 1D)		Current sites correspond to locations given in Red Book and more. Some neighbouring PL and SK sites might indicate a need for a better connectivity but perhaps this is not so important to mobile bats unless, of course, to cover important colonies?	Probably SUF?
1321	Myotis emarginatus	UA	CON	3	(1B 1C 1D)		All locations given in the Red Book seem to be covered.	Probably SUF?
1321	Myotis emarginatus	UA	PAN	2	(1B 1C)		Probably sufficient, but are there any important sites left out in the centre of the region (Red Book indicates presence here)?	?

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1323	Myotis bechsteini	MD	CON	3	(3C)	p(0- 0i)	The locations suggested by Munteanu et al. 2013 are similar in number but slightly northwards than currently proposed sites.Is this due to mapping accuracy? Why all sites have 'C' populations? Otherwise could be SUF?	? CD?
1323	Myotis bechsteini	UA	ALP-Car	6	(4B 1C 1D)		Quite scarce distribution in the Alpine region shown in the Red Book is covered by existing sites, and more.	Probably SUF?
1323	Myotis bechsteini	UA	CON	8	(5B 2C 1D)		Distribution in the Continental region as shown in the Red Book is covered by existing sites. Any clue of % population covered?	Probably SUF?
1323	Myotis bechsteini	UA	PAN	2	(2B)		Distribution in the Pannonian region (quite marginal actually) as shown in the Red Book is covered by existing sites.	Probably SUF?
1324	Myotis myotis	BY	CON	2	(2D)		Marginal to BY_CON. Only 'D' sites in the region? Irregular presence? Reference List? [BY_BOR:EXCL REF LIST]	?
1324	Myotis myotis	MD	CON	1	(1C)	p(0- 0i)	Quite the same note as above (1323): locations of proposed sites slightly differ from those suggested by Munteanu et al. (2013) and this time also from the information given by MD authorities (see map). Why the only site has 'C' population?	? CD?
1324	Myotis myotis	UA	ALP-Car	10	(2B 4C 4D)		Red Book shows a 'compact' distribution range in the south-west of Ukraine, but less dense in Carpathians. Probably sufficient if all important colonies included? Any clue of % population covered? SDF: 12-100%.	?
1324	Myotis myotis	UA	CON	17	(6B 4C 7D)		Proposed sites generally match with the distribution given in the Red Book. Any clue of % population covered?	Probably SUF?
1324	Myotis myotis	UA	PAN	1	(1B)		Present also in the western part? Red Book shows a high density of localities here.	IN MOD/IN MIN?

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1335	Spermophilus citellus	MD	CON	3	(1B 2C)	p(70-100adults)	Site proposals generally correspond with the distribution given in Munteanu et al. (2013), but the population coverage seems to be quite low, as can be judgen from population assessments, i.e. 2-19%. SDFs also report numeric data - 70-100 adl. covered. Is the total Moldavian population known (?), at least approximately? Janak et al. (2013) suggests presence also in north-western part (?).	IN MOD?
1335	Spermophilus citellus	UA	ALP-Car	1	(1D)		Present in the Alpine part of the site? Reference List? There is also one dot from UA authorities marginal with PAN? Present may be in PAN?	?
1335	Spermophilus citellus	UA	CON	3	(1B 2D)		Please clarify the status and on how old observations current site proposals have been developed)on old obervations)? Why the 4 dots reported by UA authorities (see map) are not mentioned in the SDF of a corresponding existing site? Why the only 'significant' site has B population - are there more populations in UA? More research needed - in thory this is not among the most difficult species to check?	?
1337	Castor fiber	BY	CON	43	(1A 1B 32C 8D 1?)		Common throughout the country? Can it be recorded in more existing sites to improve geographical coverage, e.g., south of Minsk oblast? [BY_BOR:IN MOD/IN MIN]	? IN MIN?
1337	Castor fiber	MD	CON	0			Absent from MD_CON? Some UA sites quite close (?).	?
1337	Castor fiber	RU	CON	95	(95C)		According to sevin.ru, occurs ~ all through the region, may be with the exception of south, south-east. No sites in few oblasts such as Bryansk, Tambov, etc.; in others one or two sites. Surely can be recorded in many already existing sites?(BOR:IN MOD)	IN MIN?
1337	Castor fiber	UA	ALP-Car	4	(2B 2D)		Quite marginal (IUCN), but perhaps expanding.	Probably SUF?
1337	Castor fiber	UA	CON	79	(23B 30C 26D)		Probably sufficient, but the species should be added to SDFs of new sites where the presence is recorded. At the moment, there are quite a large gaps in some oblasts, particularly in the centre.	IN MIN?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1352	Canis lupus	BY	CON	31	(2B 22C 6D 1?)		Common throughout the country? Can it be recorded in more existing sites to improve geographical coverage, e.g., large site in south-east corner? Is numeric information available to assess the % population covered by Emerald? Now only a very approximate assessment available: 4-74%, 104-433 individuals. [BY_BOR:IN MOD]	? IN MIN?
1352	Canis lupus	MD	CON	3	(1B 2D)		Present only in NW of CON region? Probably yes, according to IUCN map, but it is very robust. Is there any updated information? Are population assessments correct?	?
1352	Canis lupus	RU	CON	31	(30C 1D)		According to sevin.ru, occurs ~ all through the region. Probably common? Sites lacking from many oblasts, probably due to a lack of local conservation interest? Can be recorded in SDFs of more existing sites large enough to make sense in wolf conservation? [RU_BOR:IN MOD]	IN MIN?
1352	Canis lupus	UA	ALP-Car	16	(4B 4C 8D)		Considering that the species is using ~ all the region at least in some periods, and the high mobility of wolf, and the role of protected areas only as a 'haven/source' for population, can the existing site network be considered as sufficient at least from the geographical point of view? This is more about wolf population management and possible hunting quotas than the quantity of (Emerald) site selection in principle?	?
1352	Canis lupus	UA	CON	63	(14B 10C 39D)		Very much same comment as for UA_ALP, but this is a much larger territory. From the ecological pont of view: are there enough 'stepping stones' to ensure population exchanges? Important to address at least main migration corridors. Site protection is secondary in the overall protection agenda for this species. Could be SUF, or IN MIN, in case there are sites used by wolves, but not mentioned in SDFs?	?
1352	Canis lupus	UA	PAN	1	(1C)		Probably marginal to Pannonian region, but same remarks as for the above regions.	?
1354	Ursus arctos	BY	CON	1	(1?)		Present in the CON part of the site? Present in the south-east corner (see UA sites across the border)? But Red Book does not report any recent observation in BY_CON. [BY_BOR:IN MOD]	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1354	Ursus arctos	RU	CON	20	(20C)		Occurs mainly along the northern border of RU_CON. Currently sites from Bryansk, Mordovia, Chuvashia, Nizhegorodsk, Udmurtia, Mari-El, Tatarstan, Bashkortostan. Listed also in Red books of Penza (no sites), Ryazan (no sites), Tula (no sites). Are these marginal observations or permanent populations? (BOR:IN MOD)	?
1354	Ursus arctos	UA	ALP-Car	16	(4B 8C 4D)		Possibly sufficient - but isn't there a gap in the south-west? Both Red Book and information supplied by UA authorities suggest presence there? Unfortunately, there is no numeric information (which is usually available for bears). Any clue, what % of population is under Emerald?	?
1354	Ursus arctos	UA	CON	5	(2B 2C 1D)		Probably marginal on Carpathian foothills, but it would be good to see sites in centre-north! Is this an estableshed population? See also remarks on BY evaluation above. Or more evidence/studies needed?	Probably SUF? SR?
1354	Ursus arctos	UA	PAN	1	(1C)		Probably marginal to Pannonian. Possibly sufficient?	?
1355	Lutra lutra	BY	CON	37	(1B 23C 12D 1?)		Common throughout the country? Can it be recorded in more existing sites to improve geographical coverage, e.g., large site in south-east corner? Is the lack of sites in the south Minsk oblast an important gap? [BY_BOR:IN MOD]	IN MIN/IN MOD?
1355	Lutra lutra	MD	CON	4	(1B 2C 1D)	p(50- 70i)	Munteanu et al. (2013) suggests a wider distribution, e.g. In northern part, south-western part (also data from MD authorities). Present in more existing sites?	IN MOD/IN MIN?
1355	Lutra lutra	RU	CON	76	(76C)		Occurs throughout the region and listed in nearly all Red Books of oblasts in Russian Continental region, but at the same time in many oblasts one or two, or no sites at all. For example: Belgorod, Voronezh, Tambov, (e.g. 5 sites in RB, proposed only one), Vladimir and several more. Can be recorded in SDFs of already existing sites? [RU_BOR:IN MOD/IN MIN]	IN MOD/IN MIN?
1355	Lutra lutra	UA	ALP-Car	17	(7B 4C 6D)		Apparently common across country (Red Book). Proposed sites cover most of the region, may be except south-western part.	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1355	Lutra lutra	UA	CON	93	(26B 23C 44D)		Despite very many sites, is the river network sufficiently covered, particularly in the south-central part of the UA_CON? Probably no special otter sites should be designated, but may be in combination with other species, e.g. fish - this would really improve coverage in this region.	IN MOD?
1355	Lutra lutra	UA	PAN	2	(2B)		Possibly sufficient, but if new sites to be eastablished for other species, please mark otter in SDFs - a possible IN MIN in practice?	?
1356	Mustela lutreola	BY	CON	0			Present in the south, south-east? Red Book reports only old observations, just marginal according to IUCN. But there are several UA sites just across the border. Any new information?	?
1356	Mustela lutreola	MD	CON	2	(2B)	p(18- 30i)	Site proposals generally match with the distribution in MD_CON as given in Munteanu et al. (2013). But check population cover (i.e. 2B = 4-30% of national resource - is that true?).	Probably SUF? CD?
1356	Mustela lutreola	RU	CON	23	(23C)		Quite many sites in the centre of the region, but no sites in western oblasts like Bryansk, Kaluga, Belgorod, Lipetsk, Orel where the species is Red-listed. The same can be said about south, south-east, e.g. Samara, Penza, and much of Tatarstan and Bashkortostan; possibly more. [RU_BOR:IN MOD]	IN MOD?
1356	Mustela lutreola	UA	ALP-Car	7	(1B 2C 4D)		IUCN map marks that this species is 'possibly extinct' if not in Ukraine (remaining still in Danube delta, thus UA_STE) then in UA_ALP for sure. This challenges the information in Ukrainian Red Book. Present in the region today?	?
1356	Mustela lutreola	UA	CON	17	(4B 6C 7D)		Same as above: IUCN map marks that this species is 'possibly extinct' if not in Ukraine (remaining still in Danube delta, thus UA_STE) then not in UA_CON for sure. This challenges the information in Ukrainian Red Book. Present in the region today?	?
1356	Mustela lutreola	UA	PAN	1	(1D)		Present? Reference List?	?

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1361	Lynx lynx	BY	CON	17	(2B 11C 3D 1?)		Proposed sites generally correspond to the distribution given in the Red Book. Is numeric information available to assess the % population covered by Emerald? Now only a very approximate assessment available: 4-52%, pop. size 80-89 individuals. [BY_BOR:IN MOD]	?
1361	Lynx lynx	RU	CON	28	(28C)		Occurs all along northern part of the region (sevin.ru), but current sites poorly cover this area. Can be recorded in more SDFs of already existing sites? No sites, for example in Tula (in RB), only one site in Tambov (in RB), possibly more examples can be found. [RU_BOR:IN MOD]	IN MOD/IN MIN?
1361	Lynx lynx	UA	ALP-Car	17	(4B 7C 6D)		Possibly sufficient unless the gap (as indicated by UA authorities and Red Book) could be seen in south-west?	?
1361	Lynx lynx	UA	CON	15	(8B 2C 5D)		Obviously marginal in the areas close to Carpathians (North face). Sites proposed also match with the info submitted by UA authorities.	?
1361	Lynx lynx	UA	PAN	1	(1C)		Probably marginal in this region? Possibly sufficient, if in the Reference List at all?	?
1364	Halichoerus grypus	RU	CON	1	(1C)		Only in Kaliningrad oblast. Regular? [RU_BOR:SUF]	?
1910	Pteromys volans	RU	CON	1	(1C)		Boreal species, probably marginal to RU_CON. Currently only one site in Chuvashia. Listed in Red Books of Bashkortostan, Mari-El, Mordovia, Ryazan, Tatarstan, Udmurtia - do species occur also in CON parts of these oblasts - not always quite clear from Red Books? Should it be in Reference list for RU_BOR? [RU_BOR:IN MOD]	?
2021	Sicista subtilis	RU	CON	2	(2C)		In Red Books of Orel, Tatarstan, possibly occurs in Voronezh. Current site proposals only from Kursk. Sevin.ru suggests that could occur more widely along south-western border of the region. More information necessary on distribution?	SR?

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2021	Sicista subtilis	UA	CON	1	(1C)		According to IUCN, it should only occur more widely across the southern (or south-eastern) border of the region? This is very confusing if to compare the map as given in Ukrainian Red Book, where a scattered locations are marked across the most of country? The only existing Emereald site in UA_CON is even more confusing? Please clarify the background for site selection for this species.	SR?
2604	Desmana moschata	RU	CON	54	(3B 50C 1D)		Gaps in Kursk (map supplied by RU authorities), Lipetsk (quite common according to RB), Tula (2 sites accorging to RB), Penza (>10 sites, RB), north of Saratov (RU authorities), and possibly elsewhere - check Red Books - listed almost in every oblast. [RU_BOR:IN MOD]	IN MOD?
2604	Desmana moschata	UA	CON	3	(1B 2D)		According to Red Book, occurs in upper waters of Seim River (Sumsk oblast, NE) - in a length of ~ 200 km. Current sites probably insufficient, also judging from information from UA authorities?	IN MOD/IN MIN?
2608	Spermophilus suslicus	BY	CON	0			Present (centre-east; ~ meeting point of Grodno, Minsk and Brest oblasts), according to Red Book and IUCN.	IN MAJOR?
2608	Spermophilus suslicus	MD	CON	0			Munteanu et al. (2013) suggests reletively wide distribution across MD_CON.	IN MAJOR?
2608	Spermophilus suslicus	RU	CON	20	(20C)		Currently sites from Orel, Moscow, Nizhegorodsk, Lipetsk, Ryazan, Ulyanovsk, Chuvashia, but mostly a few sites from each. Red-listed also from Penza (no sites but RB gives ~ 20 sites), Tambov and Tatarstan, so more sites are likely possible.	IN MOD?
2608	Spermophilus suslicus	UA	CON	2	(1B 1D)		Proposed sites correspond to 2 localities mentioned in Red Book. Why the only 'significant' site has B population? Are there more populations elsewhere?	Probably SUF?
2612	Microtus tatricus	UA	ALP-Car	2	(1B 1D)		Current sites correspond with the range given in the Red Book and by IUCN. Should the 'B' site be 'A'. And how actually 'D' population should be interpreted in this case?	Probably SUF?
2612	Microtus tatricus	UA	PAN	1	(1B)		Present in PAN part of the site? Reference List?	?

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2613	Spalax graecus	UA	ALP-Car	1	(1C)		Distribution in UA represents only one of three isolated paopulations/separate ranges. The UA range extends further to Romania. Existing site corresponds to the location indicated in IUCN and Red Book. But why 'C' population? Are there more sites, or the site should be enlarged?	?
2613	Spalax graecus	UA	CON	1	(1C)		Site corresponds to the location indicated by IUCN and the Red Book. But why 'C' population? Are there more sites, or the site should be enlarged?	?
2633	Mustela eversmannii	MD	CON	4	(1A 1B 2C)	p(250- 350i)	Compared with current site proposals, Munteanu et al. (2013) have an additional location in the very NW of the region. Is this an important gap (or old data (?)).	?
2633	Mustela eversmannii	RU	CON	12	(12C)		Currently sites from Kursk, Orel (1), Lipetsk (1), Nizhegorodsk (1), Chuvashia (2), Tatarstan (2), Bashkortostan (1). Possibly better range coverage needed in each of the mentioned; for example in Lipetsk oblast > 10 locations suggested by RB. In addition, Red-listed also in Belgorod, Kaluga, Mari-El, Tambov; but in reality could occur even wider.	IN MOD?
2633	Mustela eversmannii	UA	CON	2	(1C 1D)	p(1- 5i)	Current site proposals, no doubt, insufficient. Both Red Book, IUCN and information from UA authorities suggest a wide distribution across all region.	IN MOD?
2647	Bison bonasus	BY	CON	4	(2B 1D 1?)		A gap in the south-eastern part of the region, according to Red Book and information given by BY authorities (see map). [BY_BOR:SUF]	IN MOD/IN MIN?
2647	Bison bonasus	RU	CON	5	(5C)	p(319- 309i)	Possibly sufficient, according to information given by RU authorities. But according to Red Books, occur (raised/set free) also in Bryansk oblast and Mordovia? [RU_BOR:IN MOD]	?
2647	Bison bonasus	UA	ALP-Car	5	(4B 1D)		Probably sufficient, but Red Book suggests also one location in the centre? What is the state of population (?):, i.e. in enclosures, semi-free, free-ranging?	?

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2647	Bison bonasus	UA	CON	1	(1B)		Some locations from Red Book are not included. What is the state of population (?):, i.e. In enclosures, semi-free, free-ranging? It would be reasonable to include at least semi-free and free-ranging populations.	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
				Reptiles				
1220	Emys orbicularis	BY	CON	21	(1A 3B 6C 11D)		Possible gap in the north-west of the region, i.e. Grodno oblast? Both Red Book and distribution given by BY authorities suggest presence here. [BY_BOR:IN MIN]	IN MOD?
1220	Emys orbicularis	MD	CON	4	(1A 2B 1D)		Distributed throughout the country, according to Munteanu et al. (2013). There seems to be a gap in the northern-central and eastern parts of the region. Present in more existing sites?	IN MOD/IN MIN?
1220	Emys orbicularis	RU	CON	9	(9C)		Clearly insufficient. Scarce sites just from Kursk, Belgorod, Penza, Ulyanovsk. In Red Book but no sites: Bashkortostan, Lipetsk, Mordovia, Nizhegorodsk, Orel, Samara, Tatarstan, Tula, Voronezh. See also connectivity with UA. [RU_BOR:IN MAJ]	IN MOD?
1220	Emys orbicularis	UA	ALP-Car	5	(1B 2C 2D)		Probably not very common in UA_ALP (not so in neighbouring EU countries-see map)? A few uncovered localities can be seen comparing Emerald sites with information from UA authorities, but are these important gaps (e.g. 'B' sites)?	?
1220	Emys orbicularis	UA	CON	73	(1A 20B 37C 15D)		Many localities indicated by UA authorities suggest presence in many existing Emerald sites where the species is not indicated in SDFs. Also there seem to be a geographical gap in centre-south of the region (Vynnitsa, Cherkassy, north Kirovograd) where probably additional sites could be necessary?	IN MIN/IN MOD?
1220	Emys orbicularis	UA	PAN	2	(1B 1C)		Information from UA authorities and neighbouring Natura 2000 sites suggest a wider distribution than current site proposals.	IN MOD?
1279	Elaphe quatuorlineata	MD	CON	1	(1C)	p(0- 0i)	The site in the northern part near Prut is covered, but distrubution given by MD authorities suggest another locality south from existing site (see map). This locality, however is not reported in Munteanu et al. (2013). Why the only site has 'C' population?	? CD ?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1298	Vipera ursinii	MD	CON	0			Probably extinct (Krescak et al. 2003; Munteanu et al. 2013). Reference List?	?
1298	Vipera ursinii	RU	CON	15	(15C)		Possible gaps: Belgorod (in RB and see info from RU authorities), Bashkortostan (only one site but see info from RU authorities, also in RB), Penza (one site, but RB gives 3 sites), Ulyanovsk (uncovered grids, see also RB).	IN MOD?
1298	Vipera ursinii	UA	CON	4	(2B 2D)		Gasc et al. (1997) and information given by UA authorities suggest a wider distribution along the southern border of the region. Can this be an old information? How to interpret an outlying Emerald site in the south-west with 'D' population?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
					Amphibians			
1166	Triturus cristatus	BY	CON	15	(1B 8C 6D)		Generally proposed sites correspond to the distribution given in Red Book, Drobenkov et al. (2005) and by BY authorities (see map). But should there be more sites in the southern part of the region to ensure better connectivity within country and across borders? [BY_BOR:IN MOD]	?
1166	Triturus cristatus	MD	CON	14	(6B 8C)	p(40900-51410i)	Distributed throughout the country, according to Munteanu et al. (2013). There is obviosly a gap in the central part of the region? Present in more existing sites?	IN MOD/IN MIN?
1166	Triturus cristatus	RU	CON	60	(60C)		Gasc et al. (1997) suggests distribution much across the region, but possibly uneven. Listed in Red Books of many oblasts. Oblasts without or few sites: Bryansk (in RB, see also connectivity with UA), Belgorod (see connectivity with UA), Tambov (RB- >10 sites!), Lipetsk (RB- 5 sites, see also grids on map), east Tatarstan (RB) and at least several more. [RU_BOR:IN MOD]	IN MOD?
1166	Triturus cristatus	UA	ALP-Car	13	(5B 6C 2D)		Present all across the region and up to 1450m (Gasc et al. 1997). By distribution looks 'near-sufficient' - but aren't not any important sites missing in the south-west of the region?	?
1166	Triturus cristatus	UA	CON	83	(63B 14C 6D)		Distribution of proposed sites corresponds with the distribution given in Gasc et al. (1997) and Pysanets (2007). But please revisit population assessments - there can't be 63 'B' sites (then the cover is 126-945%)!	Probably SUF? CD?
1166	Triturus cristatus	UA	PAN	1	(1D)		Marginal? There are some localities in the centre which are not covered according to information supplied by UA authorities. Is this an important gap?	?
1188	Bombina bombina	BY	CON	20	(1B 13C 6D)		Very generally proposed sites correspond to the distribution given in Red Book, Drobenkov et al. (2005) and by BY authorities (see map). Possible gap in the south of Minsk oblast? In one site the species is wrongly reported as 5357 Bombina pachypus (a species restricted to Appenines) - please correct! [BY_BOR:IN MOD]	? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1188	Bombina bombina	MD	CON	19	(5A 11B 3C)	p(164000-473500i)	Distributed throughout the country, according to Munteanu et al. (2013). Quite many sites, but is there a gap in the northern part of the region? Present in more existing sites?	?
1188	Bombina bombina	RU	CON	93	(93C)		Gasc et al. (1997) suggests distribution much across the region, possibly common. Existing sites very generally cover the range. Present in more existing sites to cover some potential gaps, i.e. West of Bryansk, no sites in Orel (RU authorities suggest presence), east of Belgorod, most of Tambov, south of Tatarstan,south-east of Ryazan (in RB), Udmurtia (in RB) and possibly more. [RU_BOR:IN MOD]	IN MIN?
1188	Bombina bombina	UA	ALP-Car	3	(2B 1C)		Quite marginal but surely more widely distributed according with Pysanets (2007).	?
1188	Bombina bombina	UA	CON	87	(34B 40C 13D)		Distribution of proposed sites corresponds with the distribution given in Gasc et al. (1997). Data provided by UA authorities suggest some uncovered localities, but they do not hugely improve geographical coverage. Are these important gaps, i.e. 'B' sites?	?
1188	Bombina bombina	UA	PAN	1	(1B)		Could be more widely distributed (or found in already existing sites; Pysanets 2007)); look also at numerous sites for this species just across the border in SK, HU, RO.	IN MOD/IN MIN?
1193	Bombina variegata	MD	CON	0			Munteanu et al. (2013) suggests presence in the centre-east (3 grids).	IN MAJOR?
1193	Bombina variegata	UA	ALP-Car	14	(1A 11B 2C)		According to Gasc et al. (1997), Pysanets (2007) and information from UA authorities, it occurs all across region and thus these seem to be gaps in south-west and centre-north of UA_ALP.	IN MIN/IN MOD?
1193	Bombina variegata	UA	CON	3	(1B 2D)		Marginal to Continental, but still Gasc et al. (1997), Pysanets (2007), Red Book and information from UA authorities suggest a wider distribution where there are currently no sites, mainly in Lviv region (see map).	IN MOD?
1193	Bombina variegata	UA	PAN	1	(1C)		Marginal to Pannonian, according to Pysanets (2007)? Reference List?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1199	Pelobates fuscus insubricus	MD	CON	9	(3B 5C 1D)	p(5000- 8400i)	Pelobates fuscus insurbicus is a sub-species from Northern Italy. Nominal 'Pelobates fuscus' is not a conservation unit under Resolution 6 of Berne Convention. If you wish to maintain this species in database, please move it to 'Other important species'.	-
1993	Triturus dobrogicus	UA	ALP-Car	0			If to examine the map, all EU countries have this species in their parts of ALP region. No doubt, UA must have it as well. Has there been some taxonomic mis-judgeent, e.g. the species considered as Triturus cristatus sub-species?	IN MAJOR? CD?
1993	Triturus dobrogicus	UA	PAN	1	(1B)		Red Book and Pysanets (2007) suggest another location in the eastern end of the region (the currently proposed site is in the west).	IN MIN/IN MOD?
2001	Triturus montandoni	UA	ALP-Car	14	(5A 2B 6C 1D)		Most of the region and population (79-100%) is covered?	Probably SUF?
2001	Triturus montandoni	UA	CON	1	(1A)		Marginal to Continental region.	Probably SUF?
2001	Triturus montandoni	UA	PAN	1	(1C)		Marginal to Pannonian region.	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
				Fish				
1096	Lampetra planeri	BY	CON	4	(3C 1D)		Probably marginal in BY_CON [previous conclusion for BY_BOR: IN MOD]. More sites could be found in Grodno region, i.e. NW (?), very few sites there.	?
1096	Lampetra planeri	RU	CON	4	(4C)		Currently sites from Kaluga oblast only. According to Kottelat and Freyhof (2007) the range indeed covers only north western part (even edge) of RU_CON region. But it is listed also in Red Books of following oblasts: Chuvashia, Lipetsk, Mari-El, Mordovia, Moscow, Nizhegorodsk, Orel, Ryazan, Tula, Udmurtia. [RU_BOR:IN MOD]	IN MOD?
1096	Lampetra planeri	UA	CON	0			Both IUCN map and Kottelat&Freyhof (2007) suggest presence in the western part of the region?	IN MAJOR?
1099	Lampetra fluviatilis	BY	CON	0			Present? Red Book suggest two possible localities - near Grodno and near Brest?	?
1099	Lampetra fluviatilis	RU	CON	2	(2C)		Present only in Kaliningrad. As Lithuanian and Polish sites suggest, coastal lagoons can also be important for this species. Present in more rivers than Neman? [RU_BOR:IN MOD]	?
1103	Alosa fallax	RU	CON	1	(1B)		Only in Kaliningrad oblast. It is known that Kuronian lagoon (and obviously lagoon south from Kaliningrad - see LT and PL sites) is very important for this species and apparently should be designated.	IN MOD?
1105	Hucho hucho	MD	CON	0			Possible presence in the very north-west (Prut), accordong to Munteanu et al. (2013).	?
1105	Hucho hucho	UA	ALP-Car	6	(6A)		Are most important rivers included? SDFs indicate that 90-100% of the national population is included? If this is correct, obviously sufficient.	?
1105	Hucho hucho	UA	PAN	1	(1A)		Sites only in the eastern part. Information from authorities (and neighbouring HU site) suggests presence in an existing river site in the western end of the region?	IN MIN?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1122	Gobio uranoscopus	UA	ALP-Car	5	(5A)		Both IUCN and Kottelat & Freyhof (2007) suggest presence in the eastern part of the region. SDF: 75-100% population is in the network?	Probably SUF?
1122	Gobio uranoscopus	UA	PAN	1	(1A)		Ukraine Red Book, IUCN and Kottelat & Freyhof (2007) suggest presence all though region. Thus a gap in the western part? Present in an existing site?	?
1124	Gobio albipinnatus	BY	CON	1	(1C)		Probably marginal to the east part of BY_CON (IUCN map). If this is the only site, it should be 'A'. Present in more localities? If accidental - worth to consider exclusion from the Reference List.	?
1124	Gobio albipinnatus	RU	CON	18	(18C)		Currently sites from Bryansk, Kaluga, Voronezh, Lipetsk, Ryazan, Chuvashia, Ulyanovsk, Penza; but in some oblasts very scarce. Listed also in Red Book of Mordovia, Samara and Tambov. Apparently further improvement in range coverage necessary. [RU_BOR:IN MAJ]	IN MOD?
1124	Gobio albipinnatus	UA	ALP-Car	3	(3B)		Both Kottelat&Freyhof (2007) and IUCN (reported as Romanogobio albipinnatus) suggest that species is not present in Ukraine? Please check. [In EU, reported in N2K, but not Art.17]	?
1124	Gobio albipinnatus	UA	CON	36	(22B 14C)		Both Kottelat&Freyhof (2007) and IUCN suggest that species is not present in Ukraine? At best, it could be very marginal to the east of the region? Please check. [In EU, reported in N2K, but not Art.17]	?
1130	Aspius aspius	BY	CON	12	(8C 4D)		Probably a common species. Nevertheless, the map shows a possible improvements in coverage, possibly by mentioning species in SDFs of already existing sites [FYI: was BY_BOR:IN MOD]	IN MIN?
1130	Aspius aspius	MD	CON	0			Munteanu et al. (2013) suggests presence for the most of the region, at least all along major rivers.	IN MAJOR?
1130	Aspius aspius	RU	CON	31	(31C)		Widely distributed throughout the region and probably common. Can be recorded in more existing sites? There are several oblasts with no sites at all. [RU_BOR:IN MIN]	IN MIN?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1130	Aspius aspius	UA	ALP-Car	6	(4A 2C)		Probably marginal to the Alpine Region? Could be sufficient, if all important sites are included?	?
1130	Aspius aspius	UA	CON	46	(14A 4B 27C 1D)		Probably common lowland species (Kottelat&Freyhof 2007). Could be recorded in SDFs of some existing sites (as data from UA authorities suggest)?	IN MIN?
1130	Aspius aspius	UA	PAN	1	(1A)		Probably common lowland species (Kottelat&Freyhof 2007). Could be recorded in SDFs of some existing sites (as data from UA authorities suggest)?	IN MIN?
1131	Leuciscus souffia	UA	ALP-Car	3	(3A)		Restricted to upper Tisza system (UA, RO; Kottelat&Freyhof 2007, IUCN). SDF: 60-100% population cover.	Probably SUF?
1131	Leuciscus souffia	UA	PAN	1	(1A)		Present in the western part but not in the eastern (as IUCN and Kottelat&Freyhof (2007) suggest)?	?
1134	Rhodeus sericeus amarus	BY	CON	7	(2C 5D)		Site proposals generally correspond to the range given in IUCN map and Kottelat&Freyhof (2007). [it was IN MOD in BY_BOR]. But why all sites have only 'C' and 'D'populations? Low population coverage?	?
1134	Rhodeus sericeus amarus	MD	CON	0			Must be common (IUCN, Kottelat&Freyhof 2007).	IN MAJOR?
1134	Rhodeus sericeus amarus	RU	CON	26	(26C)		Currently many sites in the centre of the region, but no sites in the westernmost oblasts such as Bryansk, Orel, Kursk, Belgorod (UA sites suggest a need for a possible connectivity). Likewise, no sites in some eastern oblasts including those where species is Red-listed: Mari-El, Nizhegorodsk, Tatarstan. [BOR:IN MAJ/IN MIN]	IN MOD?
1134	Rhodeus sericeus amarus	UA	ALP-Car	6	(6A)		Quite marginal to Alpine region, although Kottelat&Freyhof (2007) and IUCN suggests presence across all Ukraine, Art. 17 report shows that at least in ALP region populations of this species are quite scarce. Possibly sufficient?	?
1134	Rhodeus sericeus amarus	UA	CON	99	(26A 10B 63C)		Kottelat&Freyhof (2007) and IUCN suggests presence across all UA_CON region. Site distribution quite even. But probably could be added for any new site designated for other species? Please check population assessments, there can't be so many valid 'A' populations!	Probably SUF? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1134	Rhodeus sericeus amarus	UA	PAN	1	(1A)		More widely distributed? Art. 17 report shows an uninterrupted range in SK and HU along UA_PAN border.	?
1138	Barbus meridionalis	MD	CON	1	(1C)	p(0- 0i)	Kottelat&Freyhof (2007) and IUCN recognize fish under this name only in Mediterranean (FR, IT), however, in Art. 17 and Natura 2000 processes (EU) it is recognised as present in many other countries, including those bordering with Moldova. Sufficient, provided that this is the only known site, but then please check population assessment - it should be 'A'.	Probably SUF? CD?
1138	Barbus meridionalis	UA	ALP-Car	8	(2B 6C)		Same note as for MD: Kottelat&Freyhof (2007) and IUCN recognize fish under this name only in Mediterranean (FR, IT), however, in Art. 17 process and Natura 2000 (see map, in the EU) it is recognised as present in many other countries, including those bordering with UA. Sites cover large parts of the region & correspond to the sites from neighbouring countries.	Probably SUF?
1138	Barbus meridionalis	UA	CON	2	(2A)		Probably more marginal to the Continental region. All known sites included (SDF: prot level 30-100%)? Could be present/marginal also in the Pannonian region?	Probably SUF?
1139	Rutilus frisii meidingeri	MD	CON	1	(1C)	p(0- 0i)	IUCN database tells that this sub-species (or species Rutilus meidingeri) is restricted tp Austrian subalpine Lakes Attersee, Mondsee and Wolfgangsee. A small population seems to exist in Austrian stretch of Danube. Thus not relevant to Moldova. But for clarity: to which species/sub-species MD authorities are referring to?	-
1141	Chalcalburnus chalcoides	RU	CON	17	(17C)		Proposed sites generally correspond to the range as given in Kottelat&Freyhof (2007) and in the Red Books of individual oblasts.	Probably SUF?
1145	Misgurnus fossilis	BY	CON	17	(1B 11C 5D)		Apparently distributed throughout the country. Possible gaps in NW and SE of the region. Some Polish and Ukrainian sites suggest a need for connectivity across borders [BY_ BOR:IN MOD].	IN MOD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1145	Misgurnus fossilis	MD	CON	0			Munteanu et al. (2013) suggests presence in north-west and east-centre of the region. Probably common according to Kottelat&Freyhof (2007)?	IN MAJOR?
1145	Misgurnus fossilis	RU	CON	31	(31C)		Distributed all across the region (Kottelat&Freyhof 2007), but there is a number of oblasts without any sites: Kursk, Orel, Belgorod, north Saratov, Samara, Nizhegorodsk, Bashkortostan, possibly more. Present in some already existing sites (as probably common?). [RU_BOR:IN MOD/IN MIN]	IN MOD/IN MIN?
1145	Misgurnus fossilis	UA	ALP-Car	4	(2A 2C)		Present more widely in already existing sites, as indicated by UA authorities (see map)?	IN MIN?
1145	Misgurnus fossilis	UA	CON	87	(22A 7B 58C)		Widespread species; occurs all across region according to Kottelat&Freyhof and IUCN. Please check population assessments, there can't be so many valid 'A' populations!	Probably SUF? CD?
1145	Misgurnus fossilis	UA	PAN	1	(2A)		Judging from SDFs, most important sites are covered (pop. Level 30-100%)?	Probably SUF?
1146	Sabanejewia aurata	BY	CON	0			Some Polish and Ukrainian sites suggest presence in BY_CON. IUCN map does not recognise presence in BY/MD/RU/UA Continental region, but in Art. 17 reporting process and Natura 2000 (EU) this taxonomic unit was used in neighbouring countries.	IN MAJOR?
1146	Sabanejewia aurata	MD	CON	0			Adjoining Ukrainian sites suggest presence in Dniestr, at least in the northern part.	IN MAJOR?
1146	Sabanejewia aurata	RU	CON	17	(17C)		Distribution range, as given by RU authorities (see map), is larger than the one covered by existing sites. For example, no sites Orel, Kursk, Belgorod oblasts in the west. In the east the Red Book of Penza oblast suggest 4 locations while only one is proposed. Most probably IN MOD?	?
1146	Sabanejewia aurata	UA	ALP-Car	12	(11B 1C)		Information from UA authorities (see map) suggests that species could be recorded in more SDFs of already existing sites? This would could also deal with a possible gap in the centre.	IN MIN?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1146	Sabanejewia aurata	UA	CON	22	(19B 3C)		Information from UA authorities (see map) suggests that species could be recorded in more SDFs of already existing sites, for example, in the north (Chernihov oblast), south east (Poltava) and south-east (Lviv)? Not present in the centre?	IN MIN?
1146	Sabanejewia aurata	UA	PAN	0			Present judging from adjoining SK, HU and RO sites?	?
1149	Cobitis taenia	BY	CON	12	(7C 5D)		No sites in the central part of the region; also some Lithuanian and Ukrainian sites suggest a need for better connectivity. [BY_BOR:IN MOD]	IN MOD?
1149	Cobitis taenia	RU	CON	29	(29C)		Distributed all across region, according to Kottelat and Freyhof (2007). No sites in quite many oblasts, for example in Belgorod where it is listed in Red Book. Assuming that it is common, can it be found/recorded in already existing sites? [RU_BOR:IN MOD/IN MIN]	IN MOD/IN MIN?
1149	Cobitis taenia	UA	ALP-Car	7	(3A 4C)		Quite marginal according to IUCN and Kottelat&Freyhof (2007)? Current sites mostly on the north face of Carpathians.	Probably SUF?
1149	Cobitis taenia	UA	CON	91	(19A 8B 64C)		Widespread in Continental region according to IUCN and Kottelat&Freyhof (2007)? Sites cover most of the area, may be with exception of south - centre? Could be recorded to other sites that will be designated for other species? Please check population assessments - there can't be so many 'A' populations.	SUF? IN MIN? CD?
1157	Gymnocephalus schraetzer	UA	ALP-Car	3	(3A)		Proposed sites generally correspond to the localities shown in the Red Book. Judging drom SDFs, all most important sites covered?	Probably SUF?
1157	Gymnocephalus schraetzer	UA	PAN	1	(1A)		According to Red Book, occurs also in the eastern part of Pannonian? Is this an important gap?	?
1159	Zingel zingel	MD	CON	0			Present in Prut and Dniestr according to Munteanu et al. (2013).	IN MAJOR?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1159	Zingel zingel	UA	ALP-Car	6	(6C)		Proposed sites correspond to the distribution range given in Red Book and Kottelat&Freyhof (2007). But please check population assessments (why all sites have 'C' - this could indicate low coverage? CD?)	Probably SUF?
1159	Zingel zingel	UA	CON	6	(6C)		Proposed sites correspond to the distribution range given in Red Book and Kottelat&Freyhof (2007).	Probably SUF?
1159	Zingel zingel	UA	PAN	2	(2C)		Proposed sites correspond to the distribution range given in Red Book and Kottelat&Freyhof (2007).	Probably SUF?
1160	Zingel streber	MD	CON	0			Present in Prut and Dniestr accordong to Munteanu et al. (2013).	IN MAJOR?
1160	Zingel streber	UA	ALP-Car	8	(8A)		Proposed sites correspond to the distribution range given in Red Book and Kottelat&Freyhof (2007). SDF: population cover ~ 100% - is this correct? But there can't be so many 'A' sites - check population assessments.	Probably SUF?
1160	Zingel streber	UA	CON	3	(3A)		Proposed sites correspond to the distribution range given in Red Book and Kottelat&Freyhof (2007).	Probably SUF?
1160	Zingel streber	UA	PAN	1	(1A)		Present also in the western part of the region (there are localities suggested in Red Book and see connecting SK and HU sites)?	IN MIN/IN MOD?
1163	Cottus gobio	BY	CON	6	(4C 2D)		Present only in the north of the region? Kottelat& Freyhof (2007) ~ confirms this [BY_BOR:IN MOD/CD]. But some Polish and Lithuanian sites suggest that better connectivity could be achieved. Probably insufficient?	?
1163	Cottus gobio	MD	CON	0			Surely present at least in the northern part, according to Munteanu et al. (2013).	IN MAJOR?
1163	Cottus gobio	RU	CON	18	(18C)		Listed in nearly all (!) Red Books of oblasts in Russian Continental region, but at the same time no sites in many oblasts! For example: Belgorod (RB), Bryansk (RB), Orel (RB), Tula (RB), Tambov (RB), Voronez (RB), Penza (RB), Ulyanovsk (RB), and possibly more. Could be present in many already existing sites? [RU_BOR:IN MOD/IN MIN]	IN MOD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1163	Cottus gobio	UA	ALP-Car	17	(17A)		Proposed sites cover large part of the region. Please check population assessments.	Probably SUF? CD?
1163	Cottus gobio	UA	CON	7	(7A)		Marginal to UA_CON according to Kottelat&Freyhof (2007).[But the map in this source is strange - it marks a relatively small distribution, e.g. As not present in LV, LT, most of PL, BY, most of RO, thus it contradicts with other sources]. The map in Wikipedia is closer to what has been understood with this species. It is said there that Kottelat&Freyhof have divided Cottus gobio in 14 species. We ignore this].	Probably SUF? CD?
1163	Cottus gobio	UA	PAN	2	(2A)		Probably all most important sites included?	Probably SUF?
2011	Umbra krameri	MD	CON	0			IUCN and Kottelat&Freyhof (2007) clearly suggest presence.	IN MAJOR?
2011	Umbra krameri	UA	CON	4	(1C 3D)		Reference data for this species are very 'bizarre'. IUCN map suggests presence only in Chernivtsi oblast (CON). Red Book indicates only one location which falls ~ on the border of PAN and ALP regions. Kottelat & Freyhof says it is not present in UA, but by proximity of other populations, it more agrees with the IUCN. Proposed Emerald sites ~ match with the IUCN data, but why so low population assessments?	? CD?
2484	Eudontomyzon mariae	BY	CON	1	(1C)		Clearly insufficient - many Ukrainian sites along southern border suggests much wider presence in BY_CON as currently proposed.	IN MOD?
2484	Eudontomyzon mariae	MD	CON	0			Munteanu et al. (2013) suggests presence in Prut and Diestr.	IN MAJOR?
2484	Eudontomyzon mariae	RU	CON	25	(25C)		Judging from information supplied by RU authorities and in Kottelat & Freyhof (2007), there area gaps in west Bryansk, Kursk (RB), Belgorod (RB), north Voronezh (RB), west Penza (RB, Levin&Holčik 2006), Tula (RB), Tambov (RB) and may be more oblasts. [RU_BOR:IN MOD]	IN MOD?
2484	Eudontomyzon mariae	UA	ALP-Car	6	(2A 4C)		Proposed sites match with the locations indicated in the Red Book.	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
2484	Eudontomyzon mariae	UA	CON	28	(5A 1B 20C 2D)		In general terms, proposed sites correspond to locations given in the Red Book with exception Dniepr (centre) and Rivne oblast - information from UA authorities suggest presence here as well. Probably most if not all such locations are in already existing sites?	IN MIN?
2511	Gobio kessleri	MD	CON	0			Munteanu et al. (2013), as well as IUCN, suggest presence for the most of the region. [NOTE: in other sources referred as Romanogobio kessleri]	IN MAJOR?
2511	Gobio kessleri	UA	ALP-Car	7	(7C)		No sites in the central part of the region? IUCN map shows a little opposite picture: present in centre but not much on west and east corners? But in general probably not a typical high mountain river species - rather on foothills? Any better updated views on distribution in UA_ALP?	?
2511	Gobio kessleri	UA	CON	0			Present? Quite likely after IUCN and Kottelat&Freyhof (2007).	?
2511	Gobio kessleri	UA	CON	8	(3B 5C)		IUCN map (in this case quite detailed) suggests also a presence in Lviv region?	IN MOD?
2522	Pelecus cultratus	BY	CON	4	(3C 1D)		Probably more widely distributed in Pripyat basin (?), as can be judged from adjoining Ukrainian sites. But Kottelat& Freyhof (2007) draw very scarce distribution in BY. What is the nature of observations of this species?	?
2522	Pelecus cultratus	RU	CON	19	(19C)		Currently sites from Bryansk, Voronezh, Kaluga, Ryazan, Mari-El, Tatarstan and Udmurtia. Listed also in Red Books of Moscow, Penza and Tambov; perhaps occurs also in other oblasts. Distribution sporadic, linked with larger rivers and canals. [RU_BOR:IN MOD]	IN MOD?
2522	Pelecus cultratus	UA	ALP-Car	2	(2C)		IUCN and Kottelat&Freyhof (2007) suggest occurence mostly in south-centre-east of CON region: Dniepr and its tributaries. Really present? Reference List?	?
2522	Pelecus cultratus	UA	CON	21	(21C)		Proposed sites generally correspond to the range given by IUCN and Kottelat&Freyhof (2007) and more, i.e. as regards to the sites along the northern border. Could be suffiecient, but why population assessments in SDFs so low (0-41% of pop.)?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
2522	Pelecus cultratus	UA	PAN	1	(1C)		Possibly sufficient, if it is the only site in PAN (see also adjoining HU and PL site). But IUCN and Kottelat&Freyhof (2007) suggest occurence in Ukraine only in south-centre-east of CON region: Dniepr and its tributaries.	?
2555	Gymnocephalus baloni	BY	CON	3	(2C 1D)		Present? The map in Kottelat & Freyhof (2007), and in IUCN Red List, does not mark presence in Belarus, but could be accepted as Ukraine reports this species as well. Marginal to the south, south-eastern part?	Probably SUF?
2555	Gymnocephalus baloni	MD	CON	0			Present at least in the northern part, accordong to Munteanu et al. (2013).	IN MAJOR?
2555	Gymnocephalus baloni	UA	CON	9	(9C)		Proposed sites generally correspond to the localities given in the Red Book. But please check connectivity with Belarus and why in this case all sites have 'C' populations? Low population coverage (0-18%)?	?
4009	Phoxinus percnurus	BY	CON	1	(1D)		Red book suggest at least two localities, both ~ covered. The only site with 'D' population - i.e. - no significant areas in Belarus? What is the actual status of those populations? [BY_BOR:IN MAJ]	?
4009	Phoxinus percnurus	RU	CON	11	(11C)		Distribution of proposed sites generally matches with range given in Kottelat&Freyhof (2007) and by RU authorities. In the east the sites could be more numerous to ensure connectivity of populations, but otherwise could be SUF. [RU_BOR:SR]	?
4009	Phoxinus percnurus	UA	CON	16	(13C 3D)		Current Emerald sites match with the range as given in Kottelat&Freyhof (2007) and by IUCN. But please revisit population assessments, since they give very low population coverage?	Probably SUF?
4123	Eudontomyzon danfordi	UA	ALP-Car	6	(5A 1D)		Proposed sites correspond to the locations given in Red Book and Kottelat&Freyhof (2007).	Probably SUF?
4123	Eudontomyzon danfordi	UA	CON	1	(1D)		Really present in CON? Could this 'D' site be an accidental observation? Reference List?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4123	Eudontomyzon danfordi	UA	PAN	1	(1A)		Present also in the western part? Red Book gives a few more locations not covered by Emerald! Or marginal in PAN?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
				Invertebrates				
1013	Verigo geyeri	UA	CON	0			Present according to Балашев (2012)?	IN MAJOR?
1014	Vertigo angustior	BY	CON	0			Some Polish sites just at Belarus border. Present? More research needed?	SR?
1014	Vertigo angustior	MD	CON	1	(1C)	p(0- 0i)	It is OK, if this the only known site, but why population is 'C'? More research is needed?	SR?
1014	Vertigo angustior	RU	CON	4	(4C)		Sites very sporadic, but probable actual distribution is wider (i.e AnimalBase suggests distribution till South Urals)? Bulavkina & Stoiko (2007) suggest presence in Penza oblast, information given by RU authorities - also in Samara oblast (see map). May be more specific research necessary on this species? [Previous conclusion in RU_BOR:IN MOD]	IN MOD/IN MIN?
1014	Vertigo angustior	UA	ALP-Car	0			Present according to Balashov & Gural-Sverlova (2012)?	IN MAJOR?
1014	Vertigo angustior	UA	CON	2	(2D)		Apparently present, but why both sites have 'D' (insignificant) populations? If all are really 'D' then it should be excluded from the Reference List.	?
1016	Vertigo moulinsiana	BY	CON	0			One Polish site just at Belarus border and one Lithuanian site quite close to it. Present? More research needed?	SR?
1016	Vertigo moulinsiana	MD	CON	1	(1C)	p(0- 0i)	The same note as with 1014: it is OK, if this the only known site (MD0000004) but why population is 'C'? More research is needed? Check out more similar habitats?	SR?
1016	Vertigo moulinsiana	RU	CON	0			Present according to Стойко & Булавкина (2010) in the central part (Penza), and according to the Red Book of Moscow oblast. Or more research needed; unclear taxonomy?	IN MAJOR? SR?
1016	Vertigo moulinsiana	UA	PAN	0			One HU site with this species just at the border. Present?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1032	Unio crassus	BY	CON	1	(1A)	p(3-3localities)	Current site match with the only indication in the Red Book. But one Polish site suggest presence at least in another border river (south-west). [BY_BOR:IN MOD]	?
1032	Unio crassus	MD	CON	1	(1B)	p(0- 0i)	One site seems not enough although the distribution is unclear. IUCN (iucnredlist.org) suggests a wider distribution, but the map is rather 'robust'. This species is relatively easy to check/conduct monitoring. More studies needed?	?
1032	Unio crassus	RU	CON	3	(3C)		Distributed throughout the most of Continental Region in Russia, possibly right till Ural mountains (IUCN). Current sites clearly insufficient. Can be found in more existing sites? For example, mentioned in Mari El Red Book. [RU_BOR:IN MOD]	IN MOD/IN MIN?
1032	Unio crassus	UA	ALP-Car	2	(2D)		Are significant populations included but why then only 'D' populations? Likely should be present in the western part (see SK, HU sites), but less likely in the east (no corresponding sites in RO). IUCN map suggests presence all through the country.	?
1032	Unio crassus	UA	CON	9	(9D)		Surely could be more widely distributed than proposed sites (IUCN). Why all sites 'D'?	IN MOD?
1032	Unio crassus	UA	PAN	0			SK and HU sites very likely suggest presence?	IN MAJOR?
1037	Ophiogomphus cecilia	BY	CON	1	(1B)		Red Book indicates more localities (up to 5), mainly in Pripyat catchment, i.e. Southern part of the region. [BY_BOR:IN MOD].	IN MOD?
1037	Ophiogomphus cecilia	RU	CON	9	(9C)		Probably distributed all across northern part of the region, according to Skvortsov (2010) - currently sites only from Kaluga,Tula and one isolated location in Ulyanovsk. [RU_BOR:IN MOD]	IN MOD?
1037	Ophiogomphus cecilia	UA	ALP-Car	8	(2B 6C)		Can be found in more existing sites (as Ukrainian Red Book suggests)?	IN MIN?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1037	Ophiogomphus cecilia	UA	CON	24	(8B 14C 2D)		Present mostly in the western part of the country (Red Book), but proposed sites also from north-east and some isolated sites elsewhere. New data? Probably sufficient if Red Book is a valid reference.	?
1037	Ophiogomphus cecilia	UA	PAN	1	(1C)		Difficult to assess sufficiency in such a small area. More sites possible to address possible connectivity with Hungarian sites?	?
1042	Leucorrhinia pectoralis	BY	CON	5	(1C 4D)		Sites are generally lacking in the northern half of BY_CON region. 'Odonata of Belarus' website suggests that species could be relatively common all across region? [BY_BOR:IN MOD/IN MIN]	IN MOD?
1042	Leucorrhinia pectoralis	RU	CON	10	(10C)		Probably distributed all across northern part of the region, according to Skvortsov (2010) - currently sites only from Tula, Tambov, Udmurtia and Samara - some quite distantly situated oblasts. But even in Tula, where there are 4 Emerald sites for this species, it's Red Book suggests 10 localities; sites are not sufficient and concentrated in the western part, while there are also locations in centre-east. [RU_BOR:IN MOD]	IN MOD?
1042	Leucorrhinia pectoralis	UA	ALP-Car	1	(1C)		Probably marginal to Alpine region (judging from Art 17 report (EU neigbouring countries to UA and in general))?	Probably SUF?
1042	Leucorrhinia pectoralis	UA	CON	49	(3A 4B 31C 11D)		IUCN gives a very robust and general map which shows the distribution all across the region. Thus, although inclined to suggest SUF, great to assure that there are no important populations in south-central oblasts like Vinnitsa, east Cherkassky, south Khmelnistky?	?
1044	Coenagrion mercuriale	MD	CON	0			Present in STE (Derjanshi et al. 2012), but could be present in CON according to Boudot (2006) as well?	?
1045	Coenagrion hylas	RU	CON	2	(2C)		Is this species really present in Ulyanovsk oblast? According to Skvortsov (2010), occurs in the far non-European part of Russia and Japan with some sub-species from one valley in Austria, according to IUCN.	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1052	Hypodryas maturna	BY	CON	8	(3C 5D)		(In part reported as 6169 Euphydryas maturna). Distribution of proposed sites generally match with locations given in Red Book. Why all sites only 'C' or 'D' populations (a general question regarding all insects)?	Probably SUF? CD?
1052	Hypodryas maturna	MD	CON	0			Rákosy et al. (2012) suggests presence in Moldova's Continental region.	IN MAJOR?
1052	Hypodryas maturna	RU	CON	19	(19C)		Currently sites from Kaluga, Tula, Lipetsk, Vladimir and Ulyanovsk. Thus proposals seem to be sporadic and incomplete. The species is red-listed also in Moscow, Tambov (10 sites!), Voronezh (~5 sites in north) oblasts; some close-laying UA sites possibly suggest presence also in Bryansk and Kursk oblasts...[RU_BOR:IN MOD]	IN MOD?
1052	Hypodryas maturna	UA	ALP-Car	5	(2C 3D)		Probably marginal to UA_ALP (same in Alpines regions of neighbouring countries looking at Art. 17 data). Likely SUF?	?
1052	Hypodryas maturna	UA	CON	37	(12C 25D)		Sufficient, assuming that the species is restricted to the west, north-west of the country (no good reference map found). Why so many sites have 'D' populations?	Probably SUF?
1052	Hypodryas maturna	UA	PAN	1	(1D)		Judging from HU sites at the border, it should be more widespread in UA_PAN region? Check population assessments?	IN MOD? CD?
1059	Maculinea teleius	BY	CON	3	(3D)		(In part reported as 6177 Phenagris teleius). Red Book suggests also one locality in the very south-eastern end of the region (~Kamarin). Is this and important gap?	?
1059	Maculinea teleius	MD	CON	0			Action plan for Maculinea butterflies in Europe (Anonymous 1999) suggests presence in Moldova Continental region?	?
1059	Maculinea teleius	RU	CON	33	(3B 30C)		Current proposals from: Kaluga, Tula, Ryazan, Chuvashia, Ulyanovsk, and one from south Udmurtia. Network needs improvements, for example, the species is reported in Red Books of Moscow, Nishegorodsk, Tambov and Voronezh oblasts; UA sites suggest a need for connectivity with Bryansk and Kursk oblasts. [RU_BOR:SUF]	IN MOD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1059	Maculinea teleius	UA	ALP-Car	5	(3C 2D)		Scarce in Alpine region/Carpathians in the EU (Art. 17 report/map). Probably sufficient, if all known sites are proposed (no good reference map found).	?
1059	Maculinea teleius	UA	CON	28	(10C 18D)		The range not clear, but generally covered if to assume that this species is restricted to noth-west of the country. But the network is 'robust', in most oblasts quite few large sites - is it enough to ensure connectivity between populations? Again, why so many sites have 'D' populations?	? CD?
1059	Maculinea teleius	UA	PAN	0			Must be present, judging from close SK and HU sites.	IN MAJOR?
1060	Lycaena dispar	BY	CON	11	(5C 6D)		No reference map found. Some Polish, Lithuanian and Ukrainian sites at border may suggest better connectivity. Not present in the centre, i.e. South of Minsk oblast? [BY_BOR:IN MOD].	IN MOD?
1060	Lycaena dispar	MD	CON	0			Gimenez-Dixon (1996) suggest presence in MD_CON region. Also, very close UA sites report this species!	?
1060	Lycaena dispar	RU	CON	62	(62C)		Currently sites in many oblasts, but clear gaps seems to be Bryansk, Kursk, NW Belgorod, Orel, Lipetsk, Vladimir, Nizhegorodsk, may be more. Listed in Red Book of Voronezh oblast, but no sites there. [RU_BOR:IN MOD]	IN MOD?
1060	Lycaena dispar	UA	ALP-Car	18	(14C 4D)		The whole region generally covered.	Probably SUF?
1060	Lycaena dispar	UA	CON	89	(46C 43D)		Possible gap in the centre-south, i.e. Vinnitsa, Cherkassi, north Kirovograd, south Kiev? Relatively few sites there.	?
1060	Lycaena dispar	UA	PAN	2	(2C)		More sites necessary in the centre, assuming that occurs all through UA_PAN (e.g., see HU sites)?	?
1061	Maculinea nausithous	BY	CON	2	(2D)		(In part reported as 6179 Phenagris nausithous). Red Book suggests also one locality in the very south-eastern end of the region (~Kamarin). Is this and important gap?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1061	Maculinea nausithous	MD	CON	0			Probably present according to the World Conservation Monitoring Centre 1996. Phengaris nausithous. The IUCN Red List of Threatened Species. Version 2014.1: www.iucnredlist.org	?
1061	Maculinea nausithous	RU	CON	17	(2B 15C)		Currently sites from Kaluga, Tula, Ryazan, Chuvashia, Ulyanovsk, Samara, Udmurtia. Should be present at least in following oblasts, judging from Red Books: Moscow, Nizhegorodsk, Penza, Tambov, Voronezh. Judging from neighbouring UA sites, possibly also in Penza, Kursk and Belgorod.	IN MOD?
1061	Maculinea nausithous	UA	ALP-Car	4	(2C 2D)		Marginal/scarce in central, south-east Carpathians?	?
1061	Maculinea nausithous	UA	CON	25	(9C 16D)		Sites generally cover the distribution range, but they are relatively few. Not clear if ecological corridors or habitat stepping stones exist to ensure the connectivity of populations. Why most sites have 'D' populations?	?
1065	Euphydryas aurinia	BY	CON	5	(2C 3D)		Red Book suggests also one location in Gomel oblast (~Azarichi). Is this an important gap? [BY_BOR:IN MOD]	?
1065	Euphydryas aurinia	RU	CON	19	(19C)		Quite similar remark as for a few above species. Sites obviously missing from Bryansk, Orel, Moscow, Nizhegorodsk, Lipetsk, Tambov, Voronezh, may be more. [RU_BOR:IN MOD]	IN MOD?
1065	Euphydryas aurinia	UA	ALP-Car	4	(1C 3D)		Really present in UA_ALP? According to Art. 17 report (EU) none of neighbouring countries have sites in close proximity to Carpathians; same impression from IUCN map. Are these observations correct?	?
1065	Euphydryas aurinia	UA	CON	11	(2C 9D)		According to IUCN, occurs only in north-west. Thus the range is generally covered. But why most sites have 'D' populations? Does this mean low population coverage or these assessments need to be revisited?	? CD?
1071	Coenonympha oedippus	BY	CON	7	(2B 5D)		Current site proposals match with the localities shown in the Red Book. But please check population assessments (now 4-30% of national population in the network).	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1071	Coenonympha oedippus	RU	CON	0			Present according to Sinev (2008). Also mentioned as present in Russian Federation by IUCN.	?
1071	Coenonympha oedippus	UA	CON	10	(3C 7D)		Restricted only to north-north-west of the region; range generally covered by existing sites. Why mostly 'D' populations?	Probably SUF?
1074	Eriogaster catax	UA	ALP-Car	1	(1D)		Really present in UA_ALP? IUCN suggests that it is not present. Reference List?	?
1074	Eriogaster catax	UA	CON	1	(1C)		Really present? What is the status of population? If this is a valid site, why population is not 'A'?	?
1078	Callimorpha quadripunctaria	MD	CON	3	(2B 1C)	p(0- 0i)	Reported as 6199 Eupalagia quadripunctaria. Derjanshi et al. (2012) suggest a wider distribution, both in the North and in the North-West of the MD_CON.	IN MOD?
1078	Callimorpha quadripunctaria	RU	CON	9	(9C)		Currently sites proposed from: Voronezh, Kursk, Orel, Nizhegorodsk, Ulyanovsk, Tatarstan, but mostly 1-2 sites each which is unlikely sufficient. Red-listed also in Belgorod, Lipetsk and Tambov oblasts - no sites there. [RU_BOR:SR]	IN MOD?
1078	Callimorpha quadripunctaria	UA	ALP-Car	10	(3C 7D)		Must be present also in north-western part (see SK, PL sites for connectivity)? Probably can be found in already existing sites?	IN MIN?
1078	Callimorpha quadripunctaria	UA	CON	43	(3C 40D)		Probably sufficient provided that main range covered (good reference map not found). Not present in several central oblasts? What is the status of populations - mainly 'D' records?	?
1078	Callimorpha quadripunctaria	UA	PAN	2	(2D)		But all sites have 'D'populations. Check assessments?	Probably SUF? CD?
1079	Limoniscus violaceus	UA	ALP-Car	0			Present according to Mertlik & Samek (2009)?	IN MAJOR?
1081	Dytiscus latissimus	BY	CON	6	(4C 2D)		Proposed sites by distribution correspond to localities gived in Red Book. Please check population assessments. [BY_BOR:IN MOD]	Probably SUF? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1081	Dytiscus latissimus	RU	CON	7	(7C)		Clearly insufficient. Why no sites at all in the western part of Russian Continental region? Red-listed in quite many oblasts there: Belgorod, Lipetsk, Moscow, Penza, Ryazan, Voronezh oblasts; present may be elsewhere. [RU_BOR:IN MOD]	IN MOD?
1081	Dytiscus latissimus	UA	ALP-Car	0			Present according to Red Book?	?
1081	Dytiscus latissimus	UA	CON	23	(1A 22D)		The range, as given in the Red Book, is covered (and more), thus probably sufficient, but please revisit population assessments.	? CD?
1081	Dytiscus latissimus	UA	PAN	0			Present according to Red Book?	?
1082	Graphoderus bilineatus	BY	CON	5	(2C 3D)		Compared with Red Book, there seem to be a gap in the eastern part of the region; namely east from Gomel and at lower Pripyat. [BY_BOR:IN MOD]	IN MOD?
1082	Graphoderus bilineatus	RU	CON	5	(5C)		Difficult to believe that not present elsewhere in the western part except Voronezh oblast? At least UA sites might indicate possible presence in Bryansk, Kursk, Belgorod oblasts? Unfortunately, no good reference map found. New data? More studies needed? [RU_BOR:IN MOD]	SR?
1082	Graphoderus bilineatus	UA	CON	39	(1B 1C 37D)		The range, as given in the Red Book, covered. Please check population assessments.	Probably SUF? CD?
1082	Graphoderus bilineatus	UA	PAN	0			Present according to Red Book and information given by UA authorities (see map).	IN MAJOR?
1083	Lucanus cervus	BY	CON	6	(1A 1B 1C 3D)		Proposed sites generally match with the locations given in the Red Book. Probably sufficient, but there seem to be more locations at Pripyat (see map: between red and yellow sites). Is this an important gap? [BY_BOR:EXCL REF LIST]	?
1083	Lucanus cervus	MD	CON	18	(4B 14C)	p(0- 0i)	Proposed sites generally match with the distribution as given by MD authorities and by (Derjanshi et al. 2012).	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1083	Lucanus cervus	RU	CON	46	(46C)		Red-listed almost in every Red Book of subjects of Russian Federation in the Continental region. Still, either sites are very few or missing for following oblasts: Kursk, Orel, Belgorod, Kaluga (present in CON part?), Nizhegorodsk, Mordovia, Penza and possibly others. [RU_BOR:IN MOD]	IN MOD?
1083	Lucanus cervus	UA	ALP-Car	11	(11D)		The range (according to the Red Book and information from UA authorities) generally covered but why all sites are 'D'? What is the status of these populations?	? CD?
1083	Lucanus cervus	UA	CON	64	(1C 63D)		Gap in the central part (i.e. Vynnitsa, Zhitomir, Kiev, Cherkassy, Kirovograd) - both Red Book and information supplied by UA authorities suggest presence. Check population assessments?	IN MOD? CD?
1083	Lucanus cervus	UA	PAN	1	(1D)		Proposed sites correspond with the locations indicated in the Red Book. Check population assessments?	Probably SUF? CD?
1084	Osmoderma eremita	BY	CON	4	(1C 3D)		Compared with Red Book, there is a possible gap in the centre-north of the region, Minsk oblast. [BY_BOR:IN MOD]	IN MOD?
1084	Osmoderma eremita	MD	CON	0			Indications about presence in Бородин et al . (1984). Issue about taxonomy? Iucn.org suggest the presence of Osmoderma barnabita (former O. eremita) all across country?	IN MAJOR?
1084	Osmoderma eremita	RU	CON	27	(27C)		Same as with 1083: red-listed almost in every Red Book of subjects of Russian Federation. But sites are very few or missing in following oblasts: Bryansk, Kursk, Belgorod, Orel, Lipetsk, Voronez, Vladimir, Penza and more in the eastern part. [RU_BOR:IN MOD]	IN MOD?
1084	Osmoderma eremita	UA	ALP-Car	2	(1B 1C)		Quite marginal to ALP; sites cover locations indicated in the Red Book (here reported as Osmoderma barnabita).	Probably SUF?
1084	Osmoderma eremita	UA	CON	3	(1C 2D)		The whole central part is not covered by current site proposals. According to Red Book, improvements necessary also in south-west and north-east of the region (see connectivity with PL, BY, RU). Check population assessments.	IN MOD/IN MIN? CD?
1084	Osmoderma eremita	UA	PAN	1	(1B)		Sites cover the locations indicated in Red Book.	Probably SUF?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1085	Buprestis splendens	BY	CON	1	(1D)		Found in Bialowieza (PL) and surroundings. BY part of Bialowieza marked as 'insignificant' (blue) - is the population assessment correct? If there are questions about presence of any significant populations, then there is a question about listing this species in the Reference List.	Probably SUF?
1085	Buprestis splendens	UA	CON	0			Some indications on presence in old literature (e.g. Рихтер 1952). IUCN suggest that it is 'possibly extinct'. Any new information? More research needed?	?
1086	Cucujus cinnaberinus	BY	CON	3	(3D)		According to Red Book, there seem to be more (unprotected) localities in lower Pripyat (south east of the region). Please check population assessments, now it appears that all sites in BY are 'D' - insignificant! Can this be true? [BY_BOR:IN MOD]	IN MOD? CD?
1086	Cucujus cinnaberinus	MD	CON	1	(1C)	p(0- 0i)	Only one site known? Why 'C' population? More surveys necessary? Should be more widely distributed in Moldova_Continental, although generally marginal.	SR ?
1086	Cucujus cinnaberinus	RU	CON	8	(8C)		Currently sites proposed only in a handful of distantly situated oblasts, such as Ryazan, Ulyanovsk, Samara, Tatarstan. But IUCN map suggests distribution generally all through RU_CON region? Listed in Red Book of Voronezh oblast in its continental part, there should be at least 1 site! [RU_BOR:SR]	IN MOD? SR?
1086	Cucujus cinnaberinus	UA	ALP-Car	6	(6D)		Present in Alpine? All sites with 'D' populations are very confusing. There are, however, one PL, one SK and one RO site in the neighbouring areas in Carpathians. Red Book has no indication in ALP; IUCN map suggests presence, but it seems to be very general.	CD?
1086	Cucujus cinnaberinus	UA	CON	19	(19D)		Red Book and IUCN maps provide quite contradicting views: the first suggests a few scattered dots in the northern part, but the second suggests uninterrupted range covering all western half of UA_CON region. Current Emerald proposals incorporate both elements and would be OK unless some dots were not missing north from Kiev (probably in existing sites). Check population assessments.	IN MIN? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1086	Cucujus cinnaberinus	UA	PAN	0			Present? Widespread in PAN regions of Slovakia and Hungary; some sites close to border.	?
1087	Rosalia alpina	MD	CON	2	(1B 1C)	p(0- 0i)	According to Derjanshi et al. (2012), site proposals cover only one of two areas. The one north from Ohrei missing?	?
1087	Rosalia alpina	RU	CON	1	(1C)		Present in Samara (listed also in RB)? Information supplied by RU authorities suggest a few more grids, e.g. in Nizhegorodsk and Voronezh oblasts, but is this information correct (it seems to be a mountain species)? Listed in Red Books of Mari-El, Ulyanovsk and Voronezh oblasts (but no good overall reference map found).	?
1087	Rosalia alpina	UA	ALP-Car	15	(1C 14D)		No sites in the south-western corner of the region where Red Book and info from UA authorities indicate many uncovered dots. Same conclusion if to look at several Slovak sites at the border with UA. Check 'D's.	IN MOD? CD?
1087	Rosalia alpina	UA	CON	2	(1C 1D)		Red Book and information from UA authorities suggest more (uncovered by Emerald) dots in Lviv, Kiev and Cherkasy oblasts. Some apparently within existing sites, but some not.	IN MIN/IN MOD?
1087	Rosalia alpina	UA	PAN	2	(2D)		Probably more marginal to PAN region. Could be sufficient if population assessments were re-visited (D's only). Or consider Reference List?	?
1088	Cerambyx cerdo	BY	CON	4	(1B 1C 2D)		Site proposals generally match with localities given in Red Book, but there seem to be more sites unproposed in middle-Pripyat, i.e. west from the existing site (see map)? Is this an important gap? [BY_BOR:EXCL REF LIST]	?
1088	Cerambyx cerdo	MD	CON	4	(2B 2C)	p(0- 0i)	Derjanshi et al. (2012), as well as distribution given by MD authorities, suggest a wider distribution, both in the north and in the centre of the MD_CON.	IN MOD?
1088	Cerambyx cerdo	RU	CON	1	(1C)		Only one site proposed from Belgorod oblast (but 3 grids; see map). Listed in Red Books of Bryansk, Kursk and Voronezh. Also UA sites close to border possibly indicate presence in this area.	IN MOD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1088	Cerambyx cerdo	UA	ALP-Car	14	(14D)		Sites cover most of region. Justify/explain population assessments?	Probably SUF? CD?
1088	Cerambyx cerdo	UA	CON	59	(1C 58D)		Is there a gap in centre-south of the region (Vynnitsa, Cherkassy, north Kirovograd), both Red Book and information from UA authorities suggest some localities in this area? Are these recent observations?	?
1088	Cerambyx cerdo	UA	PAN	2	(2D)		Gap in the centre of the region (judging from information from UA authorities and close HU sites)?	?
1089	Morimus funereus	MD	CON	6	(4B 2C)	p(0- 0i)	No reference distribution map available. Not present in the centre of the region? Any new information?	?
1089	Morimus funereus	UA	CON	5	(5D)		Proposed sites very generally correspond the small range in Chernivtsi oblast, thus could be sufficient. But are the data either from the Red Book or Emerald sites accurate: Emerald sites seem to be a bit north-west from the locations indicated in Red Book? Or this is an artefact? Check population assessments.	? CD?
1093	Austropotamobius torrientium	UA	CON	0			Present? IUCN and Art. 17 reporting results suggest the north-eastern border of the range passing through mid-Hungary - so probably absent. But see Starobogatov (1995).	?
1920	Boros schneideri	BY	CON	6	(2B 4D)		Proposed sites generally match with the localities given in Red Book. But please revisit site assessments - why most sites have 'D'populations? [BY_BOR:IN MOD]	Probably SUF? CD?
1920	Boros schneideri	RU	CON	0			Nikitsky et al. (1996) suggests presence in Moscow oblast and listed in the Red Book of Kaluga oblast.	IN MAJOR?
1920	Boros schneideri	UA	ALP-Car	12	(12D)		Most of region covered. Check population assessments: why only 'D'?	Probably SUF? CD?
1920	Boros schneideri	UA	CON	33	(33D)		Currently proposed sites ~ corresponds with the range given in IUCN webpage. However, could be more present in Lviv, Ternopil and Khmelnitsky oblasts (IUCN draws an uninterrupted range) - a better connectivity of habitats perhaps necessary with ALP population? The 'D' problem?	? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1920	Boros schneideri	UA	PAN	1	(1D)		Really present in the region? Marginal? Nowhere in the EU reported from Pannonian region (Art. 17)?	?
1923	Mesosa myops	BY	CON	1	(1D)		Quite the same situation as with Buprestis splendens (see above) . Found in Bialowieza (PL) and surroundings (IUCN map). BY part of Bialowieza marked as 'insignificant' (blue) - is the population assessment correct? Or more studies needed? [BY_BOR:SR]	SR?
1923	Mesosa myops	RU	CON	4	(4C)		Sites only from Penza (3) and Chuvashia(1). Present elsewhere? More studies necessary? [RU_BOR:IN MOD]	?
1924	Oxyporus mannerheimii	BY	CON	0			Present? Possible according to Alexandrovitch et al. (1996). Found in Poland, not far from BY border.	?
1924	Oxyporus mannerheimii	RU	CON	0			Possibly present according to Nikitsky et al. (1996). Please check.	?
1926	Stephanopachys linearis	RU	CON	0			Possibly marginal according to Nikitsky et al. (1996). Reference List?	?
1926	Stephanopachys linearis	UA	ALP-Car	2	(2D)		Main range known very far from Ukraine - Fenno-Scandinavia with some isolated localities in the Baltics. Is the species identification correct? Reference List?	?
1926	Stephanopachys linearis	UA	CON	21	(21D)		Same as above - is the species identification correct? Reference List?	?
1927	Stephanopachys substriatus	RU	CON	0			Present in Bashkortostan (Красуцкий 2005)?	?
1927	Stephanopachys substriatus	UA	ALP-Car	2	(2D)		Present? Are the observations plausible? Reference List?	?
1927	Stephanopachys substriatus	UA	CON	23	(23D)		No good reference information/map available. EU Art. 17 report gives main populations in Scandinavia, with a few scattered localities in ALP region in central Europe - anyway very far from Ukraine. The webpage 'coleop123.narod.ru', however, suggests that could occur in the Ukraine forest zone. Please check identification, it could involve also BY and RU colleagues - as can be seen - no sites on their side.	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
1929	Aradus angularis	RU	CON	1	(1C)		This seems to be a northern species? Present in the CON part of the only site in Ryazan oblast? Is this observation plausible at all? Reference List? [RU_BOR:IN MOD]	?
4011	Bolbelasmus unicornis	UA	CON	18	(18D)		Proposed sites correspond with the localities given in the Red Book. Check site assessments.	Probably SUF? CD?
4012	Carabus hampei	UA	ALP-Car	3	(3D)		According to Art. 17 distribution and Natura 2000 a better connectivity can be achieved along Romanian border? Check population assessments.	? CD?
4012	Carabus hampei	UA	PAN	0			Hungarian Art. 17 report and Natura 2000 site suggests presence of species just at border, possibly extending into UA_PAN region.	IN MAJOR?
4013	Carabus hungaricus	RU	CON	7	(7C)		Sites proposed in Belgorod, Ulyanovsk, Samara, i.e. along the southern border of the region. Sufficient if no other locations known.	Probably SUF?
4013	Carabus hungaricus	UA	CON	0			Present? Red Book suggests 2 localities in Chernivtsi and Khmelnitsky oblasts. How old are these data?	?
4014	Carabus variolosus	MD	CON	1	(1C)	p(0- 0i)	No reference distribution map found. Sufficient or more studies necessary? If this is the only location in MD_CON - why the population assessment is 'C'?	Probably SUF? CD?
4014	Carabus variolosus	UA	ALP-Car	18	(18D)		Sites cover most of region, so presumably a significant proportion of population is covered, although this can't be seen from the assessments, as all sites are 'D'. Please explain why?	Probably SUF? CD?
4014	Carabus variolosus	UA	CON	6	(6D)		Probably marginal to Continental region? Main sites covered? Check population assessments.	Probably SUF? CD?
4014	Carabus variolosus	UA	PAN	2	(2D)		Probably marginal to Pannonian region? Main sites covered? Check population assessments.	Probably SUF? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4015	Carabus zawadszkii	UA	ALP-Car	18	(18D)		In the ALP region this species have exactly same sites as for 4014. Is this correct? Very likely occurs in the western part - there are also connecting PL populations (Art. 17: one RO dot also on SE border, but no Natura 2000 site there). But does it occur elsewhere? Why population assessments are 'D'?	Probably SUF? CD?
4015	Carabus zawadszkii	UA	CON	4	(4D)		Really occurs in the Continental Region?	? CD?
4015	Carabus zawadszkii	UA	PAN	2	(2D)		Really occurs in the Pannonian region?	? CD?
4020	Pilemia tigrina	MD	CON	1	(1C)		Probably sufficient if the only known site and the record is valid. Only then population should be 'A'.	?
4020	Pilemia tigrina	UA	ALP-Car	10	(10D)		No good reference map found for this species. In the EU reported from Bulgaria, Romania and Hungary - all locations far from Ukraine, but also far each from other. To be more confusing, Fauna Europaea indcates this species from Ukraine, former Yugoslavia, Romania, Bulgaria and Turkey. So widespread in UA_ALP? On what data site selection have been based?	?
4020	Pilemia tigrina	UA	CON	3	(3D)		No good reference map found for this species. In the EU reported from Bulgaria, Romania and Hungary - all locations far from Ukraine, but also far each from other. One site also in Moldova Continental region. On what data site selection have been based?	?
4020	Pilemia tigrina	UA	PAN	2	(2D)		No good reference map found for this species. In the EU reported from Bulgaria, Romania and Hungary (south, which is also PAN) - all locations far from Ukraine, but also far each from other. On what data site selection have been based?	?
4021	Phryganophilus ruficollis	BY	CON	0			Present? Mentioned by Alexandrovitch et al. (1996). Present in Polish Bialoweza (Natura 2000 database - see map).	?
4021	Phryganophilus ruficollis	RU	CON	1	(1C)		Is the one 'isolated' site in Chuvashia a valid record? Present in Continental region? [RU_BOR:IN MAJ]	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4021	Phryganophilus ruficollis	UA	ALP-Car	15	(15D)		In EU countries there are only very few and distantly situated locations from SE, FI, LV, PL and AT. It is confusing to accept all the UA sites because (1) the species is not reported from any site long way around and (2) the number of sites UA propose is much more that in all the EU altogether (i.e. 5 sites only; N2K viewer). Is UA really a stronghold for this species at European scale? Are all observations valid? Why 'D' pops?	? CD?
4021	Phryganophilus ruficollis	UA	CON	23	(23D)		See note as for the Alpine region. The species is considered to be a relict of primeval forests. Are such habitats so widely distributed in UA_CON?	?
4021	Phryganophilus ruficollis	UA	PAN	2	(2D)		See note as for the Alpine region. The species is considered to be a relict of primeval forests. Are such habitats so widely distributed in UA_PAN?	?
4022	Probaticus subrugosus	MD	CON	0			Present also in MD_CON? Possible indication in Набоженко (2004)	?
4022	Probaticus subrugosus	RU	CON	1	(1C)		Is the one reported site from Ulyanovsk oblast correct? Or, alternatively, is the species more widely distributed along RU CON-STE border? (no good reference map found)	?
4024	Pseudogaurotina excellens	UA	ALP-Car	14	(14D)		In EU found in Alpine regions of PL, RO and SK. Web-page 'http://www.cerambyx.uochb.cz': a very rare species endemic to the Carpathians (Slovakia, Poland, Hungary, Rumania). Probably sufficient as sites cover most of region. But please revisit population assessments.	? CD?
4024	Pseudogaurotina excellens	UA	CON	3	(3D)		Same note as above, please check the validity of records. Probably at best marginal in the region?	?
4024	Pseudogaurotina excellens	UA	PAN	2	(2D)		Same note as above, please check the validity of records. Probably at best marginal in the region?	?
4026	Rhysodes sulcatus	BY	CON	0			Present according to Red Book (3 locations), Anonymous (2014), Цинкевич & Лукашеня (2005).	IN MAJOR?
4026	Rhysodes sulcatus	MD	CON	1	(1C)	p(0- 0i)	Is this the only location known? Why population assessed as 'C'?	? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4026	Rhysodes sulcatus	UA	ALP-Car	0			IUCN map suggests presence in the western part of the ALP region (may be even extending into the PAN region). Art. 17 distribution (EU) shows several grids in the SK_ALP region just at the border with Ukraine.	IN MAJOR?
4026	Rhysodes sulcatus	UA	CON	7	(7D)		IUCN map suggests distribution all along western, north-western and northern border of the region. In this respect current site proposals are clearly insufficient. Also some Natura 2000 sites in Poland suggests a need for continuous habitat. BY_CON draft conclusion IN MAJOR; see above.	IN MOD?
4027	Arytrura musculus	BY	CON	0			Present according to Red Book and Кулак (2009) at Pripyat.	IN MAJOR ?
4027	Arytrura musculus	RU	CON	2	(2C)		Two very distant sites in Kursk and Samara oblasts??? Closest other populations in MD/RO. Are identifications correct? Any new information?	?
4027	Arytrura musculus	UA	CON	0			Possible indication of presence in Kljuchko (2006)? Art. 17 report shows presence in HU and RO; of several grids, one is just at the RO/UA border; ~ Chernivtsi oblast.	IN MAJOR?
4028	Catopta thrips	MD	CON	0			Species occur all around Moldova, could be present? More research necessary?	SR?
4028	Catopta thrips	RU	CON	6	(6C)		Existing sites from Tula, Samara and Tatarstan. Listed also in Red Book of Penza oblast (no sites). Could be more widely distributed in south-western parts of the region? Web-site 'http://rrrcn.ru/kksam-bespozvonochnye' suggests south eastern part of European Russia, in Samara only 'из Большечерниговского р-на'.	IN MOD?
4028	Catopta thrips	UA	ALP-Car	4	(4D)		In EU occurs in the south-west: RO, BG, GR, HU, mostly in Continental and other lowland regions. Really present in Alpine region of Ukraine/Carpathians? Are these observations correct? It could be rather present in PAN, as there are sites not very far in Hungary?	?
4028	Catopta thrips	UA	CON	35	(35D)		No good reference map found. Assuming that the range covers the whole southern part of the region, there seems to be a gap in the centre? Is this a reality or current site network can be improved here? Please check 'D' population assessments.	? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4030	Colias myrmidone	BY	CON	2	(2C)	p(2-2localities)	Red Book shows much wider distribution, mainly along Pripyat. Also many Ukrainian and Polish sites in this area suggest a need for better connectivity of habitats.	IN MOD?
4030	Colias myrmidone	MD	CON	0			Present? Information supplied by MD authorities suggest one location in MD_CON (north)?	IN MAJOR?
4030	Colias myrmidone	RU	CON	37	(37C)		Currently sites from Kaluga, Tula, Ryazan,Moscow, Voronezh, Mordovia, Chuvashia, Mari-El, Ulyanovsk, Samara, Tatarstan and Bashkortostan oblasts. Judging from UA sites, should be also in other western Continental oblasts, for example, listed in Red Books of Belgorod and Tambov. [RU_BOR:IN MOD]	IN MOD?
4030	Colias myrmidone	UA	ALP-Car	1	(1D)		Could be present more widely in UA_ALP region (see IUCN map)? See also a potentially connecting RO site in the map?	?
4030	Colias myrmidone	UA	CON	39	(39D)		Proposed sites (very) provisionally correspond with the distribution given by IUCN. However, the information given by UA authorities suggest a need for possible improvements, e.g., in the south-centre and north-east of the region, for example in Chernihov and east Harkov oblasts.	IN MOD/CD?
4030	Colias myrmidone	UA	PAN	0			Present according to IUCN map?	?
4036	Leptidea morsei	MD	CON	1	(1B)	p(0- 0i)	Judging from IUCN map, could be possibly present also along Prut in the north-west? More studies necessary?	?
4036	Leptidea morsei	RU	CON	7	(7C)		Currently sites from Kaluga, Ulyanovsk and Samara. According to IUCN map, should be more widespread in south-eastern part of the region. Is the site in Kaluga valid? [RU_BOR:IN MOD]	IN MOD?
4036	Leptidea morsei	UA	ALP-Car	7	(7D)		IUCN map in this case is very contradictory to UA proposals which are more in line with the site from other Emerald and Natura 2000 countries, and Art. 17. Not present in south face of Ukrainian Carpathians? Check population assessments.	? CD?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4036	Leptidea morsei	UA	CON	19	(19D)		IUCN map suggest species only in centre of UA_CON, while the proposed sites are mostly located to south-west of the region which seems to be more believable looking at other countries? Unfortunately no other detailed map was found. Any clarification? Address 'D' sites, please.	? CD?
4036	Leptidea morsei	UA	PAN	0			Present according to Popov (2005) ~ 10 locations.	IN MAJOR?
4038	Lycaena helle	BY	CON	0			Present according to Red Book (2015) - at least 2 localities, one in Grodno, and one in south Misnk oblast.	IN MAJOR?
4038	Lycaena helle	RU	CON	5	(1B 4C)		According to IUCN map, should be more widely distributed in the northern part of the region - currently just a few sites from Kaluga, Tula and Nizhegorodsk. {RU_BOR:IN MOD]	IN MOD?
4038	Lycaena helle	UA	CON	5	(5D)		IUCN map suggests a wider distribution along the northern border of the region, e.g. Rivne, Zhytomir, Kyiv oblasts? Check population assessments.	IN MOD/IN MIN?
4039	Nymphalis vaualbum	BY	CON	0			Present according to 'Lepidoptera of Belarus' and IUCN. According to the latter, it should be present at least in the central and eastern parts of BY_CON.	IN MAJOR?
4039	Nymphalis vaualbum	RU	CON	28	(28C)		Proposed sites match with the distribution given by RU authorities, but IUCN map suggest a wider distribution - almost all across the region. Which source seem to be correct? [RU_BOR:IN MOD]	?
4039	Nymphalis vaualbum	UA	ALP-Car	0			IUCN map, information from UA authorities and Nekrutenko & Tshikolovets (2005) suggest presence in the region.	IN MAJOR?
4039	Nymphalis vaualbum	UA	CON	0			Information from UA authorities and Nekrutenko & Tshikolovets (2005) suggest presence in the region (but not IUCN!).	IN MAJOR?
4040	Phyllometra culminaria	RU	CON	1	(1C)		One site from Samara. Is this correct? According to some sources, occurs only in Hungary? Reference List?	?
4042	Polyommatus eroides	BY	CON	0			Present? Several Ukrainian and Polish sites just at BY_CON border.	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4042	Polyommatus eroides	BY	CON	0			Present according to Red Books - 2006 (Пашков 2006) and 2015 versions at Pripyat.	IN MAJOR?
4042	Polyommatus eroides	RU	CON	0			Present according to Sinev (2008). Listed in Red Book of Nizhegorodsk oblast.	?
4042	Polyommatus eroides	UA	CON	7	(7D)		No good reference map found. Please inform on what data the current site selection has been done? Check population assessments (why only 'D' sites).	Probably SUF? CD?
4043	Pseudophilotes bavius	RU	CON	0			Present according to Sinev (2008). Listed in Red Book of Samara oblast.	?
4044	Xylomoia strix	RU	CON	1	(1C)		Is the site in Samara a valid record? According to Fauna Europaea, occurs more in Northern Europe? Reference List? [RU_BOR:IN MAJ]	?
4044	Xylomoia strix	UA	CON	1	(1D)		Really present? According to Fauna Europaea and Art. 17, occurs more in Northern Europe (LV, LT, possibly FI)? Reference List?	?
4045	Coenagrion ornatum	BY	CON	1	(1D)		Only one insignificant (D) site? 'Odonata of Belarus' website, and as well as IUCN and Skvortsov (2010), suggest presence all across eastern part of the region.	IN MOD?
4045	Coenagrion ornatum	MD	CON	0			IUCN map, as well as Skvortsov (2010) suggest presence, possibly all across MD_CON.	IN MAJOR?
4045	Coenagrion ornatum	RU	CON	5	(5C)		Sites only from Ulyanovsk and Samara oblasts: really present there or wrong use of names? IUCN map, however, shows that it is more likely to have these species in westernmost oblasts of RU_CON, although even there it can be marginal. At least it seems to be the case of scientific reserve, if not IN MOD (CD)?	?
4045	Coenagrion ornatum	UA	ALP-Car	6	(5A 1D)		Sites cover all eastern part of the region as suggested by Skvortsov (2010).	Probably SUF?
4045	Coenagrion ornatum	UA	CON	8	(1A 2B 2C 3D)		According to Skvortsov (2010), occurs also in Chernihov oblast? According to Red Book - across all the region, but this map is probably very robust?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion
4045	Coenagrion ornatum	UA	PAN	1	(1A)		According to Skvortsov (2010), possibly occurs also in the western part of UA_PAN?	?
4050	Isophya stysi	UA	ALP-Car	0			Present according to Heller et al. (2004) Also Art. 17 report from Slovakia suggest presence also in UA_ALP.	IN MAJOR?
4050	Isophya stysi	UA	PAN	0			Also Art. 17 report from EU countries such as Hungary and Slovakia suggest presence also in UA_PAN.	IN MAJOR?
4052	Odontopodisma rubripes	UA	ALP-Car	0			Present according to Krištin & Kaňuch (2013). In addition, Alpine sites from Slovakia and Romania indicate that it could occur also in Ukraine Carpatians. May be even marginally in Pannonean region?	IN MAJOR?
4053	Paracaloptenus caloptenoides	MD	CON	0			Krištin & Kaňuch (2013) quite likely suggests presence at Prut in the north-west.	IN MAJOR?
4054	Pholidoptera transsylvanica	UA	ALP-Car	0			Present according to Krištin & Kaňuch (2013). In addition, Alpine sites from Slovakia and Romania indicate that it could occur also in Ukraine Carpatians. May be even marginally in Pannonean region?	IN MAJOR?
4055	Stenobothrus eurasius	RU	CON	2	(2C)		One site in Ulyanovsk and Samara oblasts each. IUCN suggests that occurs only in Hungary and Romania. Is the identification/interpretation correct? Reference List?	? CD?
4056	Anisus vorticulus	BY	CON	0			Present? One Polish sites just at BY_CON border.	?
4056	Anisus vorticulus	RU	CON	2	(2C)		Probably sufficient (sites from Kaliningrad only), but: (1) why all sites have 'C' populations? (2) According to IUCN, could occur also in Bryansk, Kursk, Belgorod. Has this been checked? [RU_BOR:IN MOD]	?
4056	Anisus vorticulus	UA	CON	0			Present according to Uvayeva & Hural (2008). IUCN also suggests presence in the region.	IN MAJOR?
4056	Anisus verticulus	UA	PAN	0			According to Art. 17 report, and Natura 2000 sites (see map) some Hungarian populations just at Ukrainian border. Possible present in UA_PAN as well?	?

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion

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Moscow: http://www.mooirvao.com/mooirvao-new/redbookmo
Ulyanovsk (list only): http://oopt.aari.ru/rbdata/1107/anim
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Bryansk: http://redbookbr.narod.ru/index2.html
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Nizhegorodsk (full-web): http://red-book-nn.ru/
Tula (full-web): http://www.redbooktula.ru/krasnaya-kniga/pozvonochnie-jivotnie/
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UKRAINE

http://redbook-ua.org/ru/ Червона книга України

Web sites

http://www.iucnredlist.org/initiatives/europe The IUCN Red List of threatened species (quoted as 'IUCN' in the conclusions)
http://www.sevin.ru/vertebrates/ Позвоночные животные России
www.faunaeur.org Fauna Europaea
www.animalbase.uni-goettingen.de/zooeb/servlet/AnimalBase
http://lepidoptera-g2n.weebly.com/nymphalis.html (Lepidoptera of belarus. Series fauna of Belarus)

Code	Species Name	iso	biogeo	pASCI	pop. assessment	pop. permanent	Draft Conclusion Comments	Draft Conclusion

www.coleop123.narod.ru (Encyclopedia of insects)
http://bd.eionet.europa.eu/activities/Reporting/Article_17/Reports_2013 Results of reporting on Article 17 of the Habitats Directive (European Union).
http://natura2000.eea.europa.eu/# Natura 2000 viewer