RABIES BULLETIN EUROPE

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CONTENTS

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1. Editorial

The first international Conference "Rabies in Europe" was held in Kiev in June 2005. The Ukrainian authorities and the organisers of the conference[+] deserve great appreciation for a very successful and fruitful meeting. It was the first European scientific rabies conference in many years, and it succeeded the bi-annual European administrative meetings on rabies control. One of the main aspects in Kiev was rabies epidemiology and surveillance.

Rabies surveillance was seen by many participants as still inadequate in parts of Europe, as was reliable reporting of epidemiological data. The Rabies Bulletin Europe was considered a highly important information source and decision support for rabies control. As this pivotal position of the Rabies Bulletin depends on the data submitted, the need for good quality national data is essential. Therefore, national surveillance networks must be in place in every country. It was agreed during the conference that surveillance should focus on laboratory confirmation of suspect sick or dead animals. Specimens from healthy wild animals are not considered a suitable source for disease surveillance data. Most importantly, it was stressed that the international standards of the WHO, OIE and EU[++] for rabies control, surveillance and laboratory diagnosis should be applied nationally. Impressive results have recently been achieved in compliance with these principles in countries like the Czech Republic, Poland and Slovenia.

Another article in this issue describes the success story of rabies control in the Czech Republic. The last Czech rabies case was diagnosed in early 2002. It took thirteen years of stringent oral vaccination, to free the country from rabies. This process was not without set-backs. The article illustrates that oral vaccination of foxes is a costly and logistically difficult operation, but when carried out stringently, will lead to success.

Carsten J. Pötzsch

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[++] http://www.who.int/rabies/trs931_%2006_05.pdf
http://www.oie.int/eng/normes/mcode/en_chapitre_2.2.5.htm#rubrique_rage
http://europa.eu.int/comm/food/fs/sc/scah/out80_en.pdf

2. SUMMARY OF RABIES CASES IN EUROPE

RABIES CASES 1st QUARTER 2005 01.01.05 -31.03.05

Name	Code	Total	Wildlife	Domestic animals	Bats	Human
ALBANIA	ALB	2	2	0	0	0
AUSTRIA	AUT	0	0	0	0	0
BELARUS	BLR	95	73	22	0	0
BELGIUM	BEL	0	0	0	0	0
BOSNIA - HERCEGOVINA	BIH	7	6	1	0	0
BULGARIA	BGR	2	0	2	0	0
CROATIA	HRV	153	147	6	0	0
CYPRUS	CYP	0	0	0	0	0
CZECH REPUBLIC	CZH	0	0	0	0	0
DENMARK	DNK	0	0	0	0	0
ESTONIA	EST	62	54	8	0	0
FINLAND	FIN	0	0	0	0	0
FRANCE	FRA	0	0	0	0	0
GERMANY	DEU	25	24	1	0	0
GREECE	GRC	0	0	0	0	0
HUNGARY	HUN	4	4	0	0	0
ICELAND	ISL	0	0	0	0	0
IRELAND	IRE	0	0	0	0	0
ITALY	ITA	0	0	0	0	0
LATVIA	LVA	109	96	13	0	0
LITHUANIA	LTU	193	166	27	0	0
LUXEMBOURG	LUX	0	0	0	0	0
MACEDONIA	MKD	0	0	0	0	0
MOLDOVA *	MDA					
NETHERLANDS	NED	0	0	0	0	0
NORWAY	NOR	0	0	0	0	0
POLAND	POL	24	22	2	0	0
PORTUGAL	PRT	0	0	0	0	0
ROMANIA	ROU	151	118	33	0	0
RUSSIAN FEDERATION	RUS	839	402	433	4	0
SERBIA AND MONTENEGRO	SCG	33	28	5	0	0
SLOVAK REPUBLIC	SVK	21	20	1	0	0
SLOVENIA	SVN	2	2	0	0	0
SPAIN	ESP	0	0	0	0	0
SWEDEN	SWE	0	0	0	0	0
SWITZERLAND + LIEC.	CHE	0	0	0	0	0
TURKEY	TUR	56	6	50	0	0
UNITED KINGDOM	UNK	0	0	0	0	0
UKRAINE	UKR	490	256	234	0	0
TOTAL		2268	1426	838	4	0

Moldova * no data **Wildlife: excluding bats**

Correction (Issue IV/2004)

Table 4.5.4 Comparison of the reporting year with the previous 10-years average)

NAME	Total				Wildlife				Domestic animals				EBLV			Human		
	No.2004	10 yrs av.	Difference	in %	No.2004	10 yrs av.	Difference	in %	No.2004	10 yrs av.	Difference	in %	No.2004	10 yrs av.	Difference	No.2004	10 yrs av.	Difference
SLOVAK REPUBLIC	57	322,7	-265,7	17,7	52	263,2	-211,2	19,8	5	59,4	-54,4	8,4	0	0,1	-0,1	0	0,0	0,0
SLOVENIA	2	249,1	-247,1	0,8	2	237,0	-235,0	0,8	0	12,1	-12,1		0	0,0	0,0	0	0,0	0,0
SPAIN	1	5,4	-4,4	18,5	0	0,0	0,0		1	4,3	-3,3	23,3	0	1,1	-1,1	0	0,0	0,0

3. Miscellaneous Articles

3.1 FIRST INTERNATIONAL CONFERENCE "RABIES IN EUROPE" KIEV, (UKRAINE), 15-18 JUNE 2005 - CONCLUSIONS AND RECOMMENDATIONS -

The prevention, control and eradication of Rabies in Europe

CONSIDERING THAT

The World Health Organization (WHO) standards for humans and the World Organisation for Animal Health (OIE) standards for terrestrial animals contained in the Terrestrial Animal Health Code (the *Terrestrial Code)* and the Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (the *Terrestrial Manual) are* relevant tools for the control of rabies in humans and animals and should be continually updated.

During the past few years, Europe has witnessed the re-emergence of several infectious animal diseases, including rabies in some regions that have had a major impact on animal and human health.

New scientific and technological knowledge for the prevention and detection of rabies could contribute to the development of safer and more efficacious vaccines, diagnostic tests and preventive and control methods.

For ethical, ecological and economical reasons, it is no longer acceptable to control and eradicate disease outbreaks mainly by applying mass slaughter of animals.

The OIE, being the international reference organisation for animal health and zoonoses, as well as the World Health Organization (WHO), the European Union (EU) and other national administrations and organizations have recognized the important threat posed by the presence of rabies in Europe.

The International Conference in Kiev provided information on the valuable experience the re-emergence of rabies in some parts of Europe gained in the control and elimination of rabies and other significant animal diseases and zoonoses through the use of appropriate strategies and standardized recommended diagnostic and vaccines with a strong and close partnership among veterinary and public health authorities.

The most important aim of this Conference was to bring together veterinarians, scientists, wildlife experts, clinicians and public health officials to share their experience in modern rabies control, to agree on the strategies for the prevention and control of the disease in reservoir animal species, and to examine the threat posted by classical rabies virus and the emerging bat lyssaviruses.

The Conference is also an opportunity to evaluate and improve the current OIE standards and guidelines for better control of rabies.

For this event, the OIE has acted in collaboration with the World Health Organization (WHO), the European Union (EU), the French Food Safety Agency (AFSSA), together with the Veterinary Service of Ukraine, and the participation of the industry and the International Association for Biologicals (IABs). It has brought together representatives of all the key rabies control and research groups from around the world including the OIE Reference Laboratories and the WHO Collaborating Centres.

CONFERENCE ATTENDEES OF THE OIE INTERNATIONAL CONFERENCE "RABIES IN EUROPE" RECOMMEND THE FOLLOWING:

Session 1: Epidemiology

1. Rabies surveillance is still inadequate in many European countries and this deficit should be addressed by national authorities, with the technical support of international agencies (OIE/WHO) and with the support of the EU.
2. An effective surveillance system to collect epidemiological data of rabies in healthy 'suspect' and confirmed animals must be established in each country to confirm free status. Wild animals shot during hunting or night shooting operations are not the main relevant source for disease surveillance.
3. The surveillance should be managed with a focus on the laboratory confirmation and effective reporting of definite human and animal rabies cases and by examining 'suspect' sick or dead animals.
4. Epidemiological data should be collected, processed, analysed and disseminated rapidly between sectors and different administrative levels (veterinary and health ministries in each country must share data systems). This work should be undertaken in designated and well-equipped provincial, national or regional laboratories. An effective surveillance network should be able to transport specimens rapidly from the field to the diagnostic laboratory that does not present a risk for the shipment company. Each country should establish one national rabies data collection centre.
5. Reliable data reporting the epidemiology of rabies in animals across Europe is inconsistent. Additionally to OIE and WHO information systems, the *Rabies Bulletin Europe* (RBE) is considered a pivotal source of information and decision support for rabies control. All countries should be encouraged to submit data to RBE. Support for its future existence and modernisation should continue.
6. More research programmes should be conducted concerning the epidemiology of rabies in recognised reservoir species specifically domestic dogs, foxes, raccoon dogs and bats.
7. Increased research is necessary to clarify host/virus adaptation.
8. Uncontrolled translocation of susceptible animals from rabies endemic areas should be avoided.
9. There is a need for the harmonisation of control measures between neighbouring countries.
10. The definition of the rabies status of countries should be clarified by the OIE and WHO in relation to the epidemiological situation.

Session 2: Rabies diagnosis

1. Clinical diagnosis of rabies is not reliable. A definitive diagnosis can only be made by laboratory investigations. Each country should establish one national rabies reference laboratory.
2. Routine rabies laboratory diagnosis should be undertaken using only the techniques as specified by OIE and WHO. The 5th edition of the OIE *Terrestrial Manual* and the 4th edition of the 'Laboratory Techniques in Rabies' (WHO) must be available to each national and provincial laboratory.
3. The recommended primary diagnostic test for rabies is the fluorescent antibody test (FAT).
4. Confirmatory diagnosis, where required, should be undertaken using the rabies tissue culture inoculation test (RTCIT). The mouse inoculation test (MIT) should only be used if tissue culture is not available.
5. Methods for rabies diagnosis in animals should be harmonised across Europe. The techniques should be standardised using regular interlaboratory tests in compliance with OIE standards.

6. The use of the polymerase chain reaction (PCR) and other amplification techniques is not currently recommended for the routine diagnosis of rabies. These molecular techniques, however, can be applied to epidemiological surveys and for confirmatory diagnosis in specific circumstances and under strict quality controls in national reference laboratories that are routinely working with these techniques.
7. Attempts should be made to isolate viruses for characterization of prevalent strains. The strains should be typed and compared with isolates from neighbouring countries. The data should be rapidly exchanged and the original isolates submitted to an independent laboratory for further characterisation and stored in an archive.
8. Positive samples should be shared for further characterisation.
9. Serological methods should not be used for routine rabies diagnosis. These tests are indirect and demonstrate past-exposure to virus only and are applicable to sero-prevalence surveys and vaccine control.
10. An infrastructure for training of personnel from national diagnostic laboratories and the exchange of personnel to reference laboratories should be established.
11. There is a requirement for rapid and accurate serological methods (i.e. ELISA tests) to replace currently used virus neutralisation tests (FAVN/RFFIT) for both follow-up investigations of oral vaccination campaigns and analysis of serum from vaccinated domestic carnivores in the context of international animal movements.

Session 3: Animal rabies control

1. An understanding of the epidemiological situation of rabies in each country is a prerequisite for animal rabies control measures.
2. A long-term and consistent rabies control strategy must be prepared and revised at regular intervals. This strategy should state explicitly the necessary steps for a national rabies elimination programme in animals. This strategy should be published and copies made freely available to the general public.
3. This must include a national political willingness with the assistance of international agencies (OIE/WHO) and the EU. These agencies should demonstrate a fully cooperative and integrated approach.
4. An integrated international approach, which includes when necessary appropriate financial support for rabies control in animals should be a high priority.
5. Canine rabies can be eliminated, as has been demonstrated in specific regions using mass parenteral vaccination programmes. Stray dog destruction alone is not fully effective in rabies eradication.
6. Further research should be undertaken on the use of oral vaccines for domestic species. Under specific circumstances, oral vaccination campaigns should be also considered as complementary measures for interrupting the rabies infectious cycle in stray animals.
7. Currently, wildlife rabies control can only be effectively undertaken using oral vaccination of reservoir species. Vaccination should be the principal method of rabies control in animals. Culling reservoir species alone is not effective.
8. The selected vaccines should follow all the efficacy and safety requirements according to procedures recommended for veterinary use and according to international standards and guidelines.
9. The bait should include a biomarker to monitor bait uptake.
10. Wherever possible, rabies control in animals should be undertaken as prescribed in currently available documents by the OIE/WHO and the EU (http://europa.eu.int/comm/food/fs/sc/scah/out80_en.pdf).

11. The success of rabies control strategies must be further monitored by follow-up investigations. The biomarker detection method is the preferred option if only a single test is available in rabies negative/susceptible animals.
12. There is an urgent requirement to finance rabies research aimed at improved control.
13. Public information needs to be improved concerning the risks of rabies.
14. Awareness of rabies should be raised among health and veterinary professionals in rabies-free countries.
15. Reservoir species should be monitored in countries where a risk of re-emergence should be strengthened.
16. Research aimed at the development of new biological tools should be encouraged i.e. specific contraceptive vaccines for reservoir species.
17. There is a critical need for the establishment of an oral vaccine bank for emergency use.
18. A need exists for the development of oral vaccines/baits/delivery systems for use in all terrestrial animals.

Session 4: Human rabies prevention

1. Rabies prophylaxis in humans should be undertaken as prescribed in currently available documents by the WHO in WHO Expert Consultation on Rabies (series 931; 1st report, 2005, www.who.int).
2. As rabies remains a 'neglected' disease, an increased awareness of human infection is needed among the medical community, as demonstrated by the recent cases of rabies following organ transplantation.
3. Additional research is required to understand the pathogenesis of rabies in humans.
4. Exchange of information and cooperation between medical and veterinary authorities must be considered a priority.
5. The production of an alternative to rabies immune globulin for passive immunization (such as monoclonal antibodies) is urgently required.
6. There is a need for clear harmonised guidelines for vaccine prophylaxis for people at high risk of rabies-related virus infection.
7. Although, post-exposure prophylaxis is considered fully effective when administered properly; cross-neutralisation/protection profiles for conventional human vaccines should be assessed against all members of the lyssavirus genus.
8. Training of personnel in rabies diagnosis in humans is needed.

Session 5: Vaccinology and immunology

1. Rabies vaccines for human and animal use should meet WHO/OIE/EDQM and European Pharmacopoeia requirements for production and control of rabies vaccines.
2. Post-vaccination serological monitoring of vaccinees should be considered as an alternative to lifelong repeat vaccination.
3. The risk of sarcoma in cats following vaccination should be considered.
4. The immune response during infection and/or the response to vaccination in animals and humans should be studied in detail.
5. Attempts to correlate the minimum measurable VNA titre of 0.5 IU/ml with protective immunity should be considered.
6. The immunogenicity testing of vaccines should use appropriate challenge strains.

7. Consideration for the need of broad spectrum vaccines for animal/human use is highly required.
8. Recombinant (live vector) vaccines for parenteral vaccination of domestic animals should be considered for rabies control purposes as equivalent to inactivated vaccines.
9. Disease control authorities must pay attention to the vaccine and immunoglobulin supply chain to avoid shortages.
10. Manufacturers and regulatory bodies are recommended to follow the principle of the three R's (reduction, refinement, replacement) taking into account the outputs of the ECVAM workshop (http://ecvam.jrc.cec.eu.int).
11. Research should be undertaken to standardise antigenic mass determination in place of in vivo tests.

Session 6: Bat rabies

1. In considering the protected status of all bats in Europe, a national bat rabies surveillance network should be established in all European countries in close collaboration with bat specialists including international bat agencies.
2. This network should be based on a passive surveillance programme (collection of sick or dead bats of all species present in the country). Active surveillance with micro-samples of blood and saliva (capture of bats, bats maintained in wildlife hospitals) is also recommended. The active capture of bats should be targeted at high risk species.
3. A database is required to register submission details and sequence data for bat lyssavirus isolates sequence and archive bat lyssavirus isolates from countries throughout Europe.
4. Epidemiological data available so far show that the destruction of an infected bat colony is ineffective and must be avoided. This strategy will disturb the balance of the metacolony and should be avoided as far as possible not to induce an unpredictable dispersion of infected animals. It is preferable to monitor the known positive colonies (salivary excretion and serological survey with marking of sampled bats belonging to the colony), collection of all sick or dead bats.
5. Laboratory and sampling techniques for bat rabies should be harmonised throughout Europe.
6. All bat handlers should be vaccinated.
7. All negative samples should be reported.
8. All dead bats (regardless of species) should be submitted to the National Rabies Reference Laboratory for lyssavirus testing. Brain sample collection using a needle through the orbit of the eye socket can be used to cause minimal disruption to the bat skull and allow species identification. The bat can then be archived as a specimen.
9. Research studies are required to understand the dynamics, epidemiology and pathogenesis of these viruses and their distribution, hosts and incidence in European bat species.
10. Research is needed on the ability of lyssaviruses to spillover in host bat species and other relevant domestic / wildlife species.

General recommendation

To hold a Second OIE International Conference on "Rabies in Europe" in two years (2007)

(Adopted by the OIE First International Conference on "Rabies in Europe",
Kiev, (Ukraine), 15 -18 June 2005)

3.2 Elimination of Rabies in the Czech Republic by Oral Vaccination of Foxes

by O. Matouch[1] and J. Vitásek[2]
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Development of the rabies situation in the Czech Republic

The sylvatic rabies wave among red foxes developed during World War II and immediately after its end. During the nineteen fifties and sixties rabies affected many European countries and is still present today in some of them [1].

The first rabies positive red fox was diagnosed in the Czech Republic in the district of Broumov at the Czech-Polish border in March 1947. A significant increase of the rabies incidence was registered immediately in the following year 1948. 146 cases were registered in total, among them 106 cases (74 %) in red foxes [2].

Rabies reached its widest geographical distribution in the nineteen eighties. By this time rabies had spread over the whole territory of the Czech Republic with the exception of some districts.

The peak occurrence was recorded in 1984, when 2,232 cases were registered, 2,052 of them foxes. In spite of a certain decrease in the following years the situation remained unfavourable. Neither the establishment of incentives for hunting red foxes in 1969 nor the gassing of dens brought an improvement. The unfavourable disease situation and the existence of a permanent disease reservoir in wildlife animals negatively influenced the rabies incidence among domestic animals.

Rabies control by reduction of the fox population

In line with the trends in the neighbouring countries, the control measures applied in the Czech Republic in the nineteen sixties were directed at reducing the red fox population. The basis for this approach was a Danish investigation which showed that the reduction of an excessive population density of red foxes to the optimum, i.e. one red fox per 500 ha, can interrupt the spread of rabies [3]. For this reason, a reward of 100,- Czech Crowns was offered for every hunted red fox handed over to the veterinary service from 1969 on. The idea behind this measure was to increase the interest in hunting, to ensure the collection of samples for rabies monitoring within the red fox population, to discover new outbreaks and to pinpoint the topography and dynamics of the disease. From 1977 on the reward was increased to 150,- Czech Crowns and at the same time the fumigation of dens was started. In 1979 fumigation was gradually replaced by gassing with preparations releasing phosphorus hydrogen. The results of this measure were not convincing either.

Moreover, the method of poisoning red fox pups by gas was not in compliance with hunting ethics and tradition, the effects differed considerably between the individual areas. This measure did not lead to a reduction of the rabies incidence in the entire country. Paradoxically, the reduction of the population density in some small areas supported an increased immigration of red foxes from surrounding areas, leading to a rapid recovery of the population density. The provisionally permitted poisoning by strychnine baits proved ineffective in addition to being unselective and to thus threatening other wildlife animals and even humans. The disease situation remained very adverse and culminated during the nineteen eighties.

Rabies control by oral vaccination

Vaccine

The oral immunisation of foxes brought a considerable progress for rabies control in wildlife animals and contributed significantly to an improvement of the

disease situation in many European countries.

Oral vaccines have gradually been developed on the basis of various strains, usually in the form of live modified cell culture vaccines. Different variants of vaccine strains derived from the original SAD strain were used most commonly and have been used until now for the preparation of parenteral rabies vaccines. Various variants derived from this vaccine strain were then used for preparation of other oral vaccines, e.g. SAD-Bern, SAD-B19, SAD-Potsdam 5/88, Vnukovo-32.

Applied by different administration routes all SAD-derivatives mentioned above show a low pathogenicity for distinct rodent species. This means that there is a potential, although minimal risk, if humans are accidentally exposed to these live vaccines. Oral vaccines made from live modified viruses are the least expensive and are most frequently used in many countries. Since the nineteen eighties about 200 million doses have been administered and no case of vaccine induced rabies has been registered. Only three cases possibly induced by SAD-Bern were registered in animals in Switzerland shortly after the beginning of field trials.

In the beginning of the rabies elimination programme in the Czech Republic imported vaccine of German origin, type Tübingen, prepared from the attenuated strain SAD-B19 was used. From 1992 on this vaccine was replaced by the Czech vaccine "Lysvulpen" produced by "Bioveta Ivanovice na Hané" based on the SAD-Bern strain.

Strategy and set-backs

The first application of oral rabies vaccine was carried out in the districts of Klatovy, Domazlice and Tachov adjacent to the German border in the spring of 1989. In the course of subsequent campaigns the treated area was extended, covering 44 districts by autumn 1992. By autumn 1993 the whole territory of the Czech Republic, with the exception of the rabies free districts bordering Germany, had been included. In the following years the strategy of oral vaccination was based on the intensive treatment of rabies affected districts and on the continuation of oral immunization for at least two years after the last outbreak.

The oral vaccination strategy used was not always optimal

Because of limited financial resources, some administrative units (districts) finished oral vaccination prematurely. As a result unprotected areas were created within vaccinated areas. These spots were sometimes the source of new outbreaks. Reoccurrence of the disease made it necessary to reinitiate vaccination. Owing to this fact, the whole process of rabies elimination was complicated, prolonged and became more cost-intensive. The reduced epidemiological awareness and ineffective monitoring in originally free areas outside the vaccination zones often led to a reoccurrence of rabies. This situation was worsened by a high population density of unvaccinated red foxes in neighbouring countries and therefore possibly reintroduction of rabid animals. A typical example was the reoccurrence of rabies in the district of Rychnov nad Kněžnou in 2001 as reported in the Rabies Bulletin Europe [4].

In the beginning of the Czech vaccination campaign the Bavarian model of bait distribution was used. The members of voluntary hunting organisations distributed baits twice a year. Originally 16 baits per 1 km² were laid out. During the following years the number of baits distributed per 1 km² has been increased continuously, especially in regions with an unfavourable disease situation. Since 1996 airplane distribution of baits has been selectively used on a limited territory (4 - 18 districts). Airplane distribution has proven to be more efficient than hand distribution (Figure 1) and has been continuously extended to the whole treated area. Almost 25 million baits were used from the autumn of 1989 to the autumn of 2004. The original baiting density of 16 doses per 1 km^2 was gradually increased to 16 - 18 baits/km^2 for manual placement and 25 doses per 1 km^2 for airplane distribution.

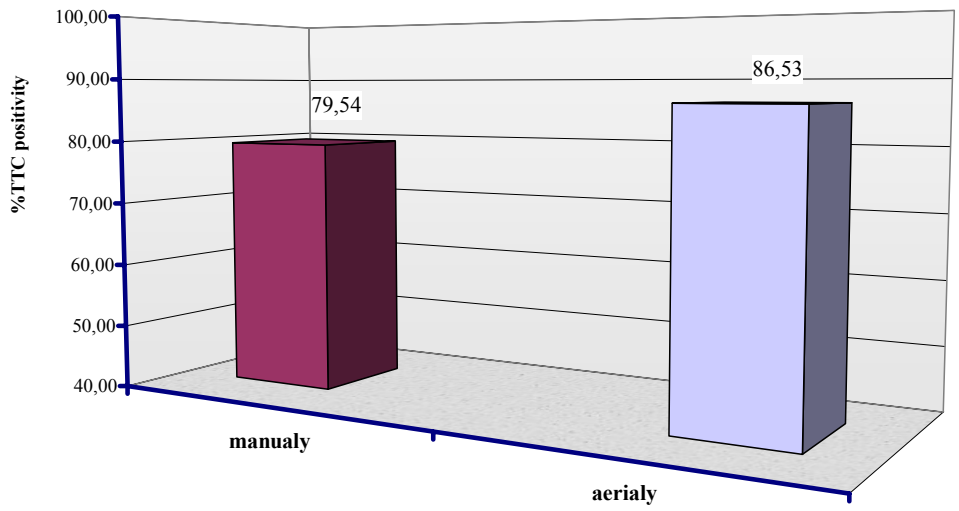

Figure 1: Vaccination efficacy after manual and aerial distribution of baits in the Czech Republic, 1977–2002.

Monitoring of oral vaccination effectiveness 1989 - 2004

Laboratory control examination

Follow-up investigations were coordinated at the National Reference Laboratory for Rabies, and focused on bait uptake, tetracycline marking, antibody formation, rabies diagnosis and characterisation of isolated strains by monoclonal antibodies.

The bait uptake was assessed by hunters and varied between 55 % and 88.8 % with an average value of 82.3 % over all campaigns. The indirect but more precise measurement of the bait uptake was performed by the examination of fox bones for tetracycline incorporation. Tetracycline was found in 65 % to 80 % of the samples examined, with an average of 78.0 %, however, the percentage varied considerably between the different areas. Antibody formation was tested in fox body fluids by rapid fluorescence focus inhibition test (RFFIT). Specific rabies virus neutralising antibodies were detected in 50 - 70 % of the samples examined.

As recommended by the World Health Organization (WHO), after each campaign wildlife specimens were collected for examination within the vaccination areas [5]. Altogether, over 50,000 animals were examined for rabies. Rabies was found in a total of 6,180 cases. All viruses isolated were street virus strains as indicated by monoclonal antibodies.

Epidemiology

The incidence of rabies in the Czech Republic has declined pronouncedly since the launch of the vaccination programme in 1989 (Table 1 and Figure 2).

Table 1: Rabies Cases in the Czech Republic, 1989 – 2004

Year	Dog	Cat	Fox	Others	Total
1989	10	45	1.369	77	1.501
1990	9	34	1.046	68	1.157
1991	8	30	1.044	72	1.154
1992	7	14	526	23	570
1993	2	19	359	42	422
1994	6	5	191	19	221
1995	2	5	157	14	178
1996	0	3	223	11	237
1997	0	6	224	8	238
1998	1	3	77	4	85
1999	1	3	192	18	214
2000	2	3	142	18	165
2001	0	2	29	4	35
2002	0	0	3	0	3
2003	0	0	0	0	0
2004	0	0	0	0	0
Total	**48**	**172**	**5.582**	**378**	**6.180**
%	**0.8**	**2.8**	**90.3**	**6.1**	**100.0**

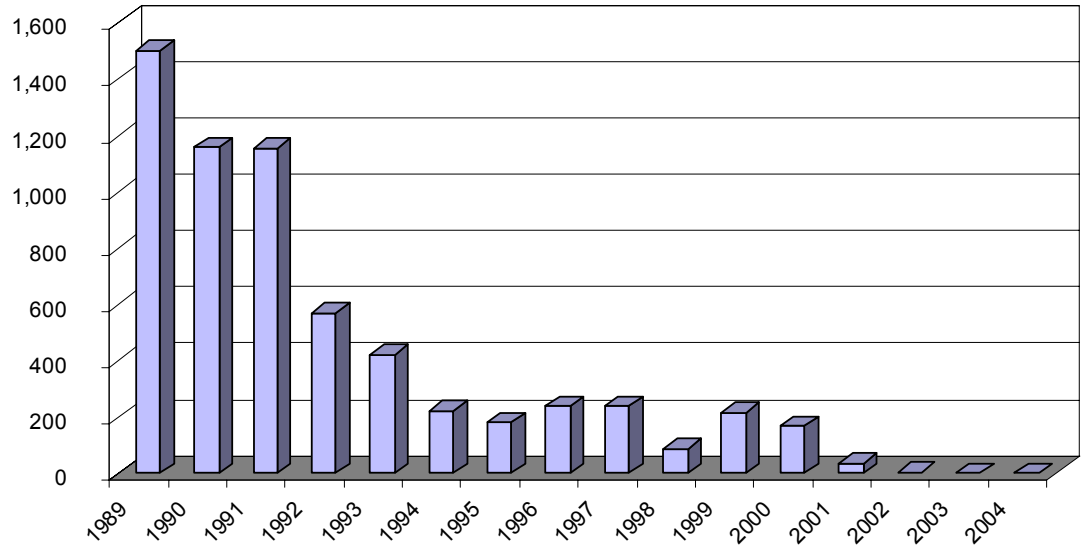

Figure 2: Rabies cases in the Czech Republic, 1989 – 2004.

A series of maps in Figure 3 demonstrates the geographical localisation of rabies cases and their gradual reduction during the vaccination campaign. By the year 1995, the overall count of positive findings had decreased by 88 % compared to the beginning of the campaign. This positive trend has continued with minor variations in the following years. In 2001 only 35 rabies cases were registered and in 2002 only 3. The last rabies case was found during April of 2002 in a red fox in the district of Trutnov. Since then not a single case of rabies has been diagnosed. The Czech Republic thereby fulfilled the criteria for recognition as a rabies-free state. This event was documented in the journal OIE „Disease Information" No. 30, 23 June 2004. The Czech Republic also remained rabies-free in 2004. This undisputed success forces us to fulfil the strict criteria for maintaining this status. Proper surveillance in all areas is part of the criteria and is focused on the examination of all suspect cases and the identification of new infection foci. A continual rabies-free status has to be documented by proper monitoring. The WHO recommends the examination of at least 8 foxes per 100 km^2 every year [5].

The disease situation can only be objectively evaluated after examination of this required number of samples in the region (the minimum area that can be declared rabies-free is 5,000 km^2). The number of control samples must be distributed equally over the entire area. The examination of areas adjoining infected areas, e.g. the areas along the northern and eastern borders, is most important. The number of samples taken in the Czech Republic each year exceeds the requirements, and typically surpasses 10 foxes/100 km^2, as documented in Table 2.

Table 2: Foxes examined per 100 km^2 in the Czech Republic

Year	No. of foxes examined	No./ 100 km^2
1999	6.411	10.6
2000	5.281	8.8
2001	6.607	11.0
2002	5.812	9.7
2003	6.248	10.4
2004	7.164	11.9

Conclusion

The elimination of rabies in the Czech Republic is undoubtedly a significant step towards fulfilling the ultimate goal of reducing, or rather eliminating, the rabies risk for animals and humans. The number of post exposure vaccinations and treatments should decrease in the future, and easier animal shipment should facilitate international trade. On the other hand, the current status requires a continuation of rabies prevention.

The increasing fox population density in rabies free areas provides good conditions for a potential re-infection and contagion. Fox hunting bags indicated increasing population densities in the course of the years. About 38,000 – 39,000 of foxes were shot per year during 1989 to 1991. As the rabies incidence was reduced by oral vaccination, the hunting bags increased to 80,822 foxes in 1998. In the years 1999 to 2002 approximately 68,000 foxes were hunted in the Czech Republic every year.

So, in the next years, we expect the oral vaccination of foxes to continue, at least in areas bordering the countries to the north and east, where there is still an unacceptably infectious rabies situation. Furthermore, we must continue the cooperation with hunters, since fox hunting remains the primary population density regulation mechanism, and an important source for the collection of laboratory samples. In order to prove the absence of rabies, approximately six hundred foxes must be examined in the Czech Republic [5]. It is important to enlist the co-operation of all parties interested in maintaining the rabies free status of the Czech Republic in future.

References

1. Wachendorfer, G., Frost, J.W.(1992). Epidemiology of red fox rabies: a review. In: Bogel, K., Meslin, F.X., Kaplan, M. eds: Wildlife Rabies Control. Chapel Place,Wells Medical Ltd, 19-31.

2. Novický, R.(1965). Geografický výskyt lyssy zvířat v českých zemích v létech 1940-1964. Závěrečná zpráva Concluding report), Liberec, 38.

3. Müller, J. (1971). The efect of fox reduction on the occurence of rabies. Observations from two outbreaks of rabies in Denmark. Bull Off Int Epizoot. 75: 736-776.

4. Matouch, O. Jaroš, J. (2000). Unexpected Outbreak of Rabies in previously Rabies-free Area of the Czech Republic. Rabies Bull. Europe 24 (4): 20-23.

5. WHO (1992). Expert Committee on Rabies 8th Report. WHO Technical Report Series 1992: 824.

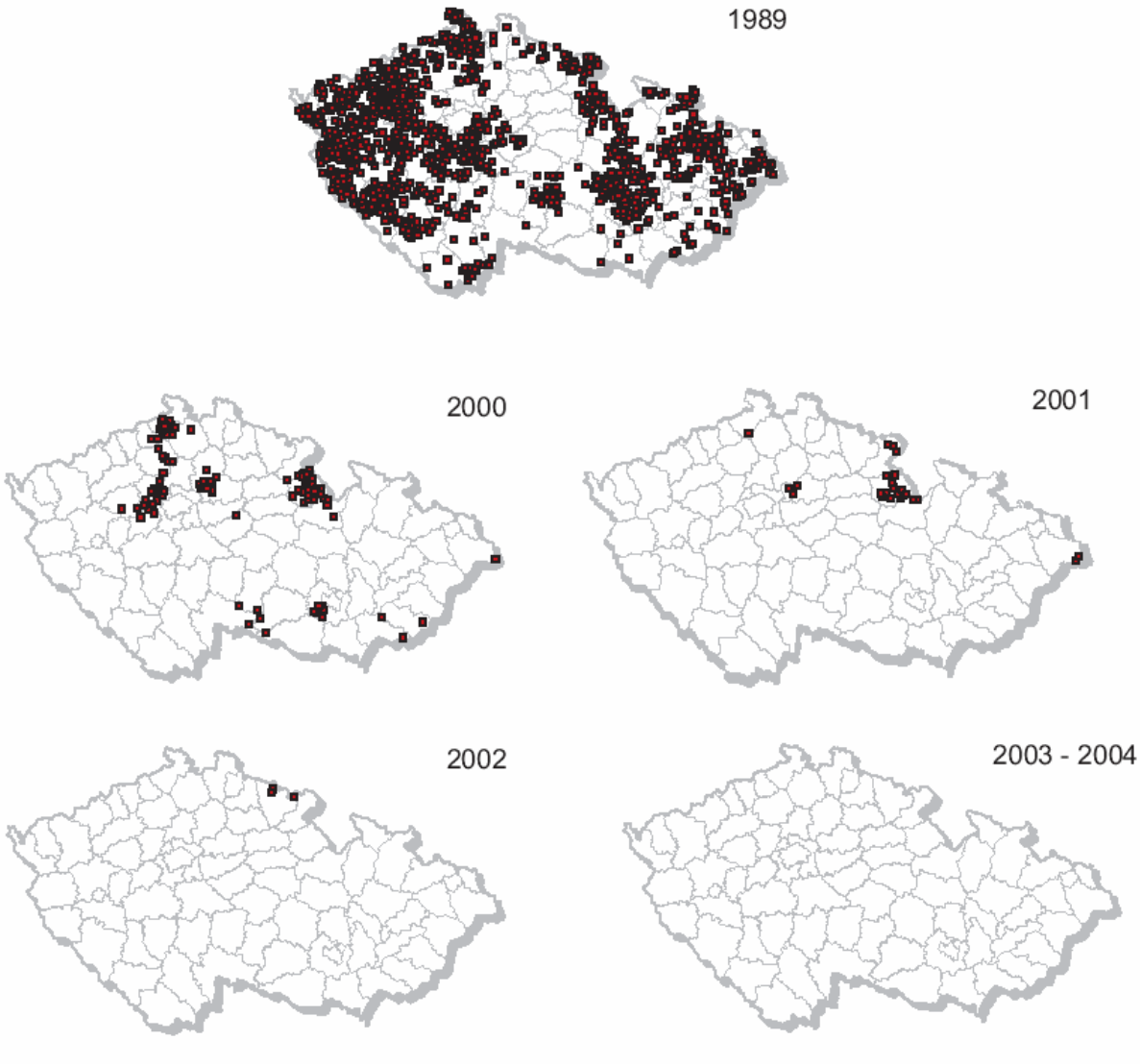

Figure 3: Rabies cases in the Czech Republic, 1989 - 2004.

4 DISTRIBUTION OF RABIES IN EUROPE

4.1 Country summaries of rabies cases, 1st quarter 2005

01.01.05 -31.03.05

Country		Domestic animals									Wildlife																	
Name	Code	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal	bat	Human cases	total
ALBANIA	ALB	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
AUSTRIA	AUT *									**0**														**0**			**0**
BELARUS	BLR	10	8	3	1	0	0	0	0	**22**	70	0	0	1	1	0	0	0	0	0	0	0	1	**73**	0	0	**95**
BELGIUM	BEL *									**0**														**0**			**0**
BOSNIA A HERCEGOVINA	BIH	0	0	1	0	0	0	0	0	**1**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**7**
BULGARIA	BGR	1	0	1	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
CROATIA	HRV	3	2	1	0	0	0	0	0	**6**	146	0	0	0	0	0	0	0	0	0	0	0	1	**147**	0	0	**153**
CYPRUS	CYP *									**0**														**0**			**0**
CZECH REPUBLIC	CZH *									**0**														**0**			**0**
DENMARK	DNK *									**0**														**0**			**0**
ESTONIA	EST	2	3	3	0	0	0	0	0	**8**	25	28	0	0	0	0	1	0	0	0	0	0	0	**54**	0	0	**62**
FINLAND	FIN *									**0**														**0**			**0**
FRANCE	FRA *									**0**														**0**			**0**
GERMANY	DEU	0	0	0	1	0	0	0	0	**1**	23	0	0	0	0	0	0	0	0	1	0	0	0	**24**	0	0	**25**
GREECE	GRC *									**0**														**0**			**0**
HUNGARY	HUN	0	0	0	0	0	0	0	0	**0**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**
ICELAND	ISL *									**0**														**0**			**0**
IRELAND	IRE *									**0**														**0**			**0**
ITALY	ITA *									**0**														**0**			**0**
LATVIA	LVA	2	6	5	0	0	0	0	0	**13**	51	41	0	0	1	3	0	0	0	0	0	0	0	**96**	0	0	**109**
LITHUANIA	LTU	8	14	4	0	0	0	1	0	**27**	83	68	0	0	0	10	5	0	0	0	0	0	0	**166**	0	0	**193**
LUXEMBOURG	LUX *									**0**														**0**			**0**
MACEDONIA	MKD *									**0**														**0**			**0**
MOLDOVA	MDA **																										
NETHERLANDS	NED *									**0**														**0**			**0**
NORWAY	NOR *									**0**														**0**			**0**
POLAND	POL	0	1	1	0	0	0	0	0	**2**	17	5	0	0	0	0	0	0	0	0	0	0	0	**22**	0	0	**24**
PORTUGAL	PRT *									**0**														**0**			**0**
ROMANIA	ROU	14	11	7	0	1	0	0	0	**33**	115	0	0	1	0	0	0	0	0	0	0	0	2	**118**	0	0	**151**
RUSSIAN FEDERATION	RUS	179	124	99	5	7	2	17	0	**433**	365	26	0	7	0	0	2	1	0	0	0	0	1	**402**	0	4	**839**
SERBIA A MONTENEGRO	SCG	3	1	0	1	0	0	0	0	**5**	28	0	0	0	0	0	0	0	0	0	0	0	0	**28**	0	0	**33**
SLOVAK REPUBLIC	SVK	0	1	0	0	0	0	0	0	**1**	19	0	0	0	0	0	0	0	0	0	0	0	1	**20**	0	0	**21**
SLOVENIA	SVN	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
SPAIN	ESP *									**0**														**0**			**0**
SWEDEN	SWE *									**0**														**0**			**0**
SWITZERLAND + LIEC.	CHE *									**0**														**0**			**0**
TURKEY	TUR	27	2	9	0	12	0	0	0	**50**	4	0	0	2	0	0	0	0	0	0	0	0	0	**6**	0	0	**56**
UNITED KINGDOM	UNK *									**0**														**0**			**0**
UKRAINE	UKR	113	99	19	0	3	0	0	0	**234**	243	4	0	3	1	3	0	0	0	0	0	0	2	**256**	0	0	**490**
TOTAL		**362**	**272**	**153**	**8**	**23**	**2**	**18**	**0**	**838**	**1203**	**172**	**0**	**14**	**3**	**16**	**8**	**1**	**0**	**1**	**0**	**0**	**8**	**1426**	**0**	**4**	**2268**
PER CENT		16.0%	12.0%	6.7%	0.4%	1.0%	0.1%	0.8%	0.0%	36.9%	53.0%	7.6%	0.0%	0.6%	0.1%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	62.9%	0.0%	0.2%	100%

* NO CASES ** NO DATA

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife														bat	Human cases	total
	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal			
BOSNIA AND HERZEGOVINA																										
Banja Luka	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Doboj	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Prnjavor	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Modrica	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Sipovo	0	0	1	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Mrkonjic Grad	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**7**
PER CENT	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.7%	0.0%	0.0%	100%
CROATIA																										
Bjelovarsko-bilogorska	0	0	0	0	0	0	0	0	**0**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**9**
Karlovacka	0	1	0	0	0	0	0	0	**1**	16	0	0	0	0	0	0	0	0	0	0	0	0	**16**	0	0	**17**
Koprivničko-križevačka	0	0	0	0	0	0	0	0	**0**	13	0	0	0	0	0	0	0	0	0	0	0	0	**13**	0	0	**13**
Krapinsko-zagorska	0	0	0	0	0	0	0	0	**0**	11	0	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
Licko-senjska	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Medimurska	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Osjecko-baranjska	1	0	1	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	0	**3**
Požeško-slavonska	1	0	0	0	0	0	0	0	**1**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**10**
Primorsko- Goranska	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Šibensko- Kninska	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Sisacko-moslavacka	0	0	0	0	0	0	0	0	**0**	11	0	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
Splitsko-dalmatinska	0	0	0	0	0	0	0	0	**0**	13	0	0	0	0	0	0	0	0	0	0	0	0	**13**	0	0	**13**
Varaždinska	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Virovitčko-Podravska	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Vukovarsko-srijemska	0	0	0	0	0	0	0	0	**0**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**8**
Zadarska	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Zagrebacka	1	1	0	0	0	0	0	0	**2**	39	0	0	0	0	0	0	0	0	0	0	0	0	**39**	0	0	**41**
TOTAL	**3**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	**146**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**147**	**0**	**0**	**153**
PER CENT	2.0%	1.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	95.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	96.1%	0.0%	0.0%	100%
SLOVAKIA																										
Banskobystrický kraj	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Bratislavský kraj	0	1	0	0	0	0	0	0	**1**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**7**
Kosický kraj	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	0	**1**
Nitriansky kraj	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Trenciansky kraj	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Trnavský kraj	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
TOTAL	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**20**	**0**	**0**	**21**
PER CENT	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	90%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	95.2%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife														bat	Human cases	total
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal			
ESTONIA																										
Harjumaa	0	1	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Hiiumaa	0	0	0	0	0	0	0	0	**0**	2	1	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Ida-Virumaa	1	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Järvamaa	0	0	0	0	0	0	0	0	**0**	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Jõgevamaa	0	0	0	0	0	0	0	0	**0**	1	3	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**
Läänemaa	0	1	2	0	0	0	0	0	**3**	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**6**
Lääne-Virumaa	0	0	0	0	0	0	0	0	**0**	5	6	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
Pärnumaa	0	0	1	0	0	0	0	0	**1**	9	5	0	0	0	0	0	0	0	0	0	0	0	**14**	0	0	**15**
Põlvamaa	0	0	0	0	0	0	0	0	**0**	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Raplamaa	0	0	0	0	0	0	0	0	**0**	2	1	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Tartumaa	0	1	0	0	0	0	0	0	**1**	2	2	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**5**
Valgamaa	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Võrumaa	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	1	0	0	0	0	0	0	**2**	0	0	**2**
Viljandimaa	1	0	0	0	0	0	0	0	**1**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
TOTAL	**2**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**8**	**25**	**28**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**0**	**0**	**62**
PER CENT	3.2%	4.8%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	12.9%	40.3%	45.2%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.1%	0.0%	0.0%	100%
HUNGARY																										
Fejér	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Hajdú-Bihar	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**4**
PER CENT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	100%
LITHUANIA																										
Alytus	0	0	1	0	0	0	0	0	**1**	10	7	0	0	0	3	1	0	0	0	0	0	0	**21**	0	0	**22**
Kaunas	0	1	1	0	0	0	0	0	**2**	2	7	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**11**
Klaipeda	2	1	0	0	0	0	0	0	**3**	2	5	0	0	0	0	2	0	0	0	0	0	0	**9**	0	0	**12**
Marijampole	1	0	0	0	0	0	0	0	**1**	2	3	0	0	0	2	0	0	0	0	0	0	0	**7**	0	0	**8**
Panvežys	0	4	0	0	0	0	0	0	**4**	13	5	0	0	0	0	1	0	0	0	0	0	0	**19**	0	0	**23**
Šiauliai	2	2	0	0	0	0	0	0	**4**	17	10	0	0	0	2	0	0	0	0	0	0	0	**29**	0	0	**33**
Taurage	0	3	1	0	0	0	0	0	**4**	6	4	0	0	0	1	0	0	0	0	0	0	0	**11**	0	0	**15**
Telšiai	0	0	0	0	0	0	0	0	**0**	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Utena	1	1	1	0	0	0	0	0	**3**	4	5	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**12**
Vilnius	2	2	0	0	0	0	1	0	**5**	26	21	0	0	0	2	1	0	0	0	0	0	0	**50**	0	0	**55**
TOTAL	**8**	**14**	**4**	**0**	**0**	**0**	**1**	**0**	**27**	**83**	**68**	**0**	**0**	**0**	**10**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**166**	**0**	**0**	**193**
PER CENT	4.1%	7.3%	2.1%	0.0%	0.0%	0.0%	0.5%	0.0%	14.0%	43.0%	35.2%	0.0%	0.0%	0.0%	5.2%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.0%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	*Domestic animals*									*Wildlife*																		
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal	bat	Human cases	total
LATVIA																												
Aizkraukle	0	0	0	0	0	0	0	0	**0**	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Bauska	0	0	0	0	0	0	0	0	**0**	3	2	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Cēsis	0	0	0	0	0	0	0	0	**0**	3	3	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**6**
Daugavpils	1	0	0	0	0	0	0	0	**1**	2	5	0	0	0	1	0	0	0	0	0	0	0	**8**	0	0	**9**
Dobele	0	0	0	0	0	0	0	0	**0**	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**
Gulbene	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Jelgava	0	0	0	0	0	0	0	0	**0**	2	3	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Jēkabpils	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Krāslava	0	0	0	0	0	0	0	0	**0**	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Liepāja	1	1	0	0	0	0	0	0	**2**	12	4	0	0	0	1	0	0	0	0	0	0	0	**17**	0	0	**19**
Limbaži	0	0	0	0	0	0	0	0	**0**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**
Madona	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Ogre	0	0	0	0	0	0	0	0	**0**	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Preiļi	0	0	5	0	0	0	0	0	**5**	6	3	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**14**
Rīga	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Saldus	0	3	0	0	0	0	0	0	**3**	1	7	0	0	1	0	0	0	0	0	0	0	0	**9**	0	0	**12**
Talsi	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
Tukums	0	2	0	0	0	0	0	0	**2**	2	1	0	0	0	1	0	0	0	0	0	0	0	**4**	0	0	**6**
Valmiera	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Ventspils	0	0	0	0	0	0	0	0	**0**	4	2	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**6**
TOTAL	**2**	**6**	**5**	**0**	**0**	**0**	**0**	**0**	**13**	**51**	**41**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**96**	**0**	**0**	**109**
PER CENT	1.8%	5.5%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	46.8%	37.6%	0.0%	0.0%	0.9%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.1%	0.0%	0.0%	100%
FEDERAL REPUBLIC OF GERMANY																												
Baden- Wurttemberg	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	0	0	1	0	0	0	**4**	0	0	**4**
Hesse	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Rhineland-Palatinate	0	0	0	1	0	0	0	0	**1**	18	0	0	0	0	0	0	0	0	0	0	0	0	**18**	0	0	**19**
TOTAL	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**24**	**0**	**0**	**25**
PER CENT	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	4.0%	92%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	96.0%	0.0%	0.0%	100%
BULGARIA																												
Vidin	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Dobrich	0	0	1	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
TOTAL	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
PER CENT	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%	0.0%	0.0%	100%
ALBANIA																												
Peshkopi	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
PER CENT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife																	
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal	bat	Human cases	total
SERBIA A MONTENEGRO																											
Montenegro	0	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Central Serbia	3	0	0	0	0	0	0	0	**3**	22	0	0	0	0	0	0	0	0	0	0	0	0	**22**	0	0	**25**
Vojvodina	0	1	0	0	0	0	0	0	**1**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**7**
TOTAL	**3**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**5**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**33**
PER CENT	9.1%	3.0%	0.0%	3.0%	0.0%	0.0%	0.0%	0.0%	15.2%	84.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.8%	0.0%	0.0%	100%
TURKEY																											
Aydın	1	0	2	0	2	0	0	0	**5**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**6**
Adiyaman	0	0	0	0	0	0	0	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Balıkesir	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Bursa	3	0	0	0	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**3**
Denizli	0	0	0	0	1	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Diyarbakir	1	0	1	0	8	0	0	0	**10**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**10**
Elazığ	2	0	1	0	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**3**
Erzincan	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Gaziantep	6	0	0	0	0	0	0	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**6**
Hatay	1	0	0	0	1	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
Izmir	1	0	1	0	0	0	0	0	**2**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**4**
Istanbul	2	1	0	0	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**3**
Kilis	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Kocaeli	0	0	2	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
Malatya	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Manisa	1	0	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Muş	0	0	0	0	0	0	0	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Sakarya	2	0	0	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
S. Urfa	2	1	2	0	0	0	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**5**
Tunceli	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
TOTAL	**27**	**2**	**9**	**0**	**12**	**0**	**0**	**0**	**50**	**4**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**56**
PER CENT	48.2%	3.6%	16.1%	0.0%	21.4%	0.0%	0.0%	0.0%	89.3%	7.1%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	0.0%	0.0%	100%
POLAND																											
Opolskie	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Podkarpackie	0	1	0	0	0	0	0	0	**1**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**6**
Podlaskie	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Warminsko-Mazurskie	0	0	1	0	0	0	0	0	**1**	2	5	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**8**
Wielkopolskie	0	0	0	0	0	0	0	0	**0**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**8**
TOTAL	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**17**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**24**
PER CENT	0.0%	4.2%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	70.8%	20.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.7%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife														bat	Human cases	total
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal			
ROMANIA																										
Alba	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Arad	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Arges	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Bacau	1	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Bihor	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Bistrita Nasaud	1	0	0	0	0	0	0	0	**1**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**4**
Botosani	0	1	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Brasov	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Braila	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Buzau	3	2	5	0	1	0	0	0	**11**	36	0	0	1	0	0	0	0	0	0	0	0	0	**37**	0	0	**48**
Calarasi	0	0	0	0	0	0	0	0	**0**	19	0	0	0	0	0	0	0	0	0	0	0	0	**19**	0	0	**19**
Caras S.	0	0	1	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Cluj	2	0	0	0	0	0	0	0	**2**	3	0	0	0	0	0	0	0	0	0	0	0	1	**4**	0	0	**6**
Covasna	0	0	0	0	0	0	0	0	**0**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**6**
Dambovita	1	0	0	0	0	0	0	0	**1**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**4**
Dolj	1	0	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Giurgiu	0	3	0	0	0	0	0	0	**3**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**4**
Gorj	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Harghita	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Hunedoara	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Iasi	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Mehedinti	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Mures	1	1	0	0	0	0	0	0	**2**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**10**
Neamt	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Olt	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Prahova	0	1	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Satu Mare	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Salaj	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Suceava	2	1	1	0	0	0	0	0	**4**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**6**
Tulcea	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	0	**1**
Valcea	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Vrancea	1	2	0	0	0	0	0	0	**3**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**12**
TOTAL	**14**	**11**	**7**	**0**	**1**	**0**	**0**	**0**	**33**	**115**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**118**	**0**	**0**	**151**
PER CENT	9.3%	7.3%	4.6%	0.0%	0.7%	0.0%	0.0%	0.0%	21.9%	76.2%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	78.1%	0.0%	0.0%	100%
SLOVENIA																										
Savinjska	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
PER CENT	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife														bat	Human cases	total
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal			
UKRAINE																										
A.R.Krym	0	0	1	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Cherkasskaja o.	0	0	0	0	0	0	0	0	**0**	7	0	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**7**
Chernigovskaja o.	0	2	2	0	0	0	0	0	**4**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**12**
Chernovitskaja o.	1	0	0	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Dnepropetrovskaja o.	12	8	1	0	0	0	0	0	**21**	24	1	0	1	0	0	0	0	0	0	0	0	0	**26**	0	0	**47**
Donetskskaja o.	16	7	2	0	0	0	0	0	**25**	26	0	0	0	1	0	0	0	0	0	0	0	0	**27**	0	0	**52**
Ivano-Frankovskaja	1	1	0	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	0	**3**
Kharkovskaja o.	14	17	0	0	0	0	0	0	**31**	53	0	0	0	0	0	0	0	0	0	0	0	1	**54**	0	0	**85**
Kiyevskaja o.	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Khersonskaja o.	2	0	0	0	0	0	0	0	**2**	13	2	0	2	0	1	0	0	0	0	0	0	0	**18**	0	0	**20**
Khmelnitskaja o.	1	2	0	0	0	0	0	0	**3**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**4**
Kirovogradskaja o.	1	2	0	0	0	0	0	0	**3**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**5**
Luganskaja o.	11	5	3	0	0	0	0	0	**19**	7	1	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**27**
Lvovskaja o.	0	2	0	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
Nikolayevskaja o.	2	2	0	0	0	0	0	0	**4**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**6**
Odesskaja o.	0	2	0	0	0	0	0	0	**2**	10	0	0	0	0	1	0	0	0	0	0	0	0	**11**	0	0	**13**
Poltavskaja o.	16	12	6	0	1	0	0	0	**35**	16	0	0	0	0	1	0	0	0	0	0	0	0	**17**	0	0	**52**
Rovenskaja o.	0	1	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**2**
Sumskaja o.	10	17	1	0	0	0	0	0	**28**	31	0	0	0	0	0	0	0	0	0	0	0	0	**31**	0	0	**59**
Ternopolskaja o.	6	0	0	0	0	0	0	0	**6**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**11**
Volynskaja o.	0	1	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**1**
Vinnitskaja o.	0	2	1	0	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**3**
Zakarpatskaja o.	0	1	1	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
Zaporozhskaja o.	20	15	1	0	2	0	0	0	**38**	27	0	0	0	0	0	0	0	0	0	0	0	0	**27**	0	0	**65**
Zhitomirskaja o.	0	0	0	0	0	0	0	0	**0**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**5**
TOTAL	**113**	**99**	**19**	**0**	**3**	**0**	**0**	**0**	**234**	**243**	**4**	**0**	**3**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**256**	**0**	**0**	**490**
PER CENT	23.1%	20.2%	3.9%	0.0%	0.6%	0.0%	0.0%	0.0%	47.8%	49.6%	0.8%	0.0%	0.6%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	52.2%	0.0%	0.0%	100%
BELARUS																										
Brest	0	0	0	0	0	0	0	0	**0**	14	0	0	0	0	0	0	0	0	0	0	0	0	**14**	0	0	**14**
Vitebsk	2	4	0	1	0	0	0	0	**7**	10	0	0	0	1	0	0	0	0	0	0	0	0	**11**	0	0	**18**
Gomel	4	1	1	0	0	0	0	0	**6**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**15**
Grodn	1	3	2	0	0	0	0	0	**6**	15	0	0	0	0	0	0	0	0	0	0	0	1	**16**	0	0	**22**
Minsk	1	0	0	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Mogelov	2	0	0	0	0	0	0	0	**2**	20	0	0	1	0	0	0	0	0	0	0	0	0	**21**	0	0	**23**
TOTAL	**10**	**8**	**3**	**1**	**0**	**0**	**0**	**0**	**22**	**70**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**73**	**0**	**0**	**95**
PER CENT	10.5%	8.4%	3.2%	1.1%	0.0%	0.0%	0.0%	0.0%	23.2%	73.7%	0.0%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	76.8%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2005

01.01.05-31.03.05

Location	Domestic animals									Wildlife																		
Name	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other mustelides	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal	bat	Human cases	total
RUSSIA																												
Astrahanskja obl.	7	8	16	0	0	0	2	0	**33**	2	1	0	1	0	0	0	1	0	0	0	0	0	**5**	0	0	**38**
Belgorodskja obl.	3	17	5	1	0	0	0	0	**26**	10	0	0	0	0	0	1	0	0	0	0	0	0	**11**	0	0	**37**
Brjanskaja obl.	1	1	0	0	0	0	0	0	**2**	14	1	0	0	0	0	0	0	0	0	0	0	0	**15**	0	0	**17**
Chuvashskaja resp.	1	0	0	0	0	0	0	0	**1**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**6**
Dagestan resp.	0	1	8	0	0	0	0	0	**9**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**9**
Ivanovskaja obl.	0	0	0	0	0	0	0	0	**0**	10	0	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**10**
Jaroslavskaja obl.	0	0	0	0	0	0	0	0	**0**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Kabardino-Balk. resp	0	0	2	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**2**
Kaliningradskaja obl.	0	0	3	0	0	0	0	0	**3**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**4**
Kalmykija resp.	1	0	1	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	**3**
Kaluzskaja obl.	2	0	0	0	0	0	0	0	**2**	12	0	0	0	0	0	0	0	0	0	0	0	0	**12**	0	0	**14**
Krasnodarskij kr.	53	20	2	0	0	0	11	0	**86**	17	0	0	0	0	0	0	0	0	0	0	0	0	**17**	0	0	**103**
Kurskaja obl.	13	21	18	0	0	0	1	0	**53**	28	0	0	0	0	0	1	0	0	0	0	0	0	**29**	0	0	**82**
Lipeckaja obl.	3	2	1	0	0	0	0	0	**6**	18	0	0	0	0	0	0	0	0	0	0	0	0	**18**	0	0	**24**
Mordovija resp.	1	0	0	0	0	0	0	0	**1**	14	0	0	0	0	0	0	0	0	0	0	0	0	**14**	0	0	**15**
Marij El resp.	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**
Moskovskaja obl.	9	1	0	0	0	0	0	0	**10**	30	17	0	1	0	0	0	0	0	0	0	0	0	**48**	0	3	**61**
Nizegorodskaja obl.	2	0	0	0	0	0	0	0	**2**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**11**
Novgorodskaja obl.	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Orlovskaja obl.	2	1	1	0	0	0	0	0	**4**	13	0	0	0	0	0	0	0	0	0	0	0	0	**13**	0	0	**17**
Penzenskaja obl.	3	1	0	0	0	0	0	0	**4**	29	0	0	1	0	0	0	0	0	0	0	0	0	**30**	0	0	**34**
Pskovskaja obl.	1	0	0	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Rjazanskaja obl.	0	0	0	0	0	0	0	0	**0**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**
Rostovskaja obl.	8	5	8	0	0	1	0	0	**22**	12	0	0	2	0	0	0	0	0	0	0	0	0	**14**	0	0	**36**
Saratovskaja obl.	17	11	11	2	7	1	0	0	**49**	45	0	0	0	0	0	0	0	0	0	0	0	1	**46**	0	0	**95**
Sever. Oset-Ala. resp.	4	1	1	1	0	0	0	0	**7**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**7**
Smolenskaja obl.	0	1	0	0	0	0	0	0	**1**	10	2	0	1	0	0	0	0	0	0	0	0	0	**13**	0	0	**14**
Stavropol'skij kr.	12	10	4	1	0	0	1	0	**28**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**29**
Tambovskaja obl.	0	0	1	0	0	0	0	0	**1**	11	0	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**12**
Tulskaja obl.	8	4	1	0	0	0	0	0	**13**	4	1	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**18**
Tverskaja obl.	1	0	1	0	0	0	0	0	**2**	14	2	0	0	0	0	0	0	0	0	0	0	0	**16**	0	0	**18**
Uljanovskaja obl.	3	1	2	0	0	0	2	0	**8**	7	0	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**15**
Volgogradskaja obl.	4	1	2	0	0	0	0	0	**7**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**12**
Vladimirskja obl.	1	2	0	0	0	0	0	0	**3**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**11**
Voronezskaja obl.	19	15	11	0	0	0	0	0	**45**	24	2	0	1	0	0	0	0	0	0	0	0	0	**27**	0	0	**72**
TOTAL	**179**	**124**	**99**	**5**	**7**	**2**	**17**	**0**	**433**	**365**	**26**	**0**	**7**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**402**	**0**	**4**	**839**
PER CENT	21.3%	14.8%	11.8%	0.6%	0.8%	0.2%	2.0%	0.0%	51.6%	43.5%	3.1%	0.0%	0.8%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	47.9%	0.0%	0.5%	100%

4.3 Trend tables

4.3.1 Comparison of the reporting quarter (I/2005) with the previous quarter (IV/2004)

NAME	Total			Wildlife			Domestic animals			Bats			Human		
	I 2005 (no.)	IV 2004 (no.)	Difference	I 2005 (no.)	IV 2004 (no.)	Difference	I 2005 (no.)	IV 2004 (no.)	Difference	I 2005 (no.)	IV 2004 (no.)	Difference	I 2005 (no.)	IV 2004 (no.)	Difference
ALBANIA	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0
AUSTRIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BELARUS	95	60	35	73	44	29	22	16	6	0	0	0	0	0	0
BELGIUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BOSNIA - HERCEGOVINA	7	10	-3	6	7	-1	1	3	-2	0	0	0	0	0	0
BULGARIA	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0
CROATIA	153	123	30	147	116	31	6	7	-1	0	0	0	0	0	0
CYPRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZECH REPBUBLIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTONIA	62	72	-10	54	59	-5	8	13	-5	0	0	0	0	0	0
FINLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FRANCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GERMANY	25	23	2	24	19	5	1	0	1	0	4	-4	0	0	0
GREECE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNGARY	4	9	-5	4	8	-4	0	1	-1	0	0	0	0	0	0
ICELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATVIA	109	90	19	96	70	26	13	20	-7	0	0	0	0	0	0
LITHUANIA	193	176	17	166	136	30	27	40	-13	0	0	0	0	0	0
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MACEDONIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOLDOVA	0	0	0			0			0	0		0	0		0
NETHERLANDS	0	1	-1	0	0	0	0	0	0	0	1	-1	0	0	0
NORWAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POLAND	24	37	-13	22	26	-4	2	10	-8	0	1	-1	0	0	0
PORTUGAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROMANIA	151	82	69	118	56	62	33	26	7	0	0	0	0	0	0
RUSSIAN FEDERATION	839	749	90	402	279	123	433	463	-30	0	0	0	4	7	-3
SERBIA AND MONTENEGRO	33	51	-18	28	36	-8	5	15	-10	0	0	0	0	0	0
SLOVAK REPUBLIC	21	12	9	20	12	8	1	0	1	0	0	0	0	0	0
SLOVENIA	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0
SPAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWEDEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWITZERLAND/LIECHTEN.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY	56	17	39	6	3	3	50	14	36	0	0	0	0	0	0
UKRAINE	490	411	79	256	202	54	234	209	25	0	0	0	0	0	0
UNITED KINGDOM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2268	1923	345	1426	1073	353	838	837	1	0	6	-6	4	7	-3

Wildlife: excluding bats
I /2005 (no.), IV /2004 (no.): number of cases
Difference: no. of cases in I /2005 minus cases in IV /2004

4.3.2 Comparison of the reporting quarter (I/2005) with the same quarter of the previous year (I/2004)

NAME	Total			Wildlife			Domestic animals			Bats			Human		
	I 2005 (no.)	I 2004 (no.)	Difference	I 2005 (no.)	I 2004 (no.)	Difference	I 2005 (no.)	I 2004 (no.)	Difference	I 2005 (no.)	I 2004 (no.)	Difference	I 2005 (no.)	I 2004 (no.)	Difference
ALBANIA	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0
AUSTRIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BELARUS	95	71	24	73	50	23	22	21	1	0	0	0	0	0	0
BELGIUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BOSNIA - HERCEGOVINA	7	17	-10	6	13	-7	1	4	-3	0	0	0	0	0	0
BULGARIA	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0
CROATIA	153	212	-59	147	195	-48	6	17	-11	0	0	0	0	0	0
CYPRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZECH REPBUBLIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTONIA	62	127	-65	54	104	-50	8	23	-15	0	0	0	0	0	0
FINLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FRANCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GERMANY	25	6	19	24	4	20	1	1	0	0	1	-1	0	0	0
GREECE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNGARY	4	63	-59	4	57	-53	0	6	-6	0	0	0	0	0	0
ICELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATVIA	109	122	-13	96	103	-7	13	19	-6	0	0	0	0	0	0
LITHUANIA	193	129	64	166	101	65	27	28	-1	0	0	0	0	0	0
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MACEDONIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOLDOVA															
NETHERLANDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORWAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POLAND	24	54	-30	22	43	-21	2	9	-7	0	2	-2	0	0	0
PORTUGAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROMANIA	151	61	90	118	45	73	33	16	17	0	0	0	0	0	0
RUSSIAN FEDERATION	839	297	542	402	118	284	433	179	254	4	0	4	0	0	0
SERBIA AND MONTENEGRO	33	92	-59	28	79	-51	5	13	-8	0	0	0	0	0	0
SLOVAK REPUBLIC	21	18	3	20	16	4	1	2	-1	0	0	0	0	0	0
SLOVENIA	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0
SPAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWEDEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWITZERLAND/LIECHTEN.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY	56	25	31	6	2	4	50	23	27	0	0	0	0	0	0
UKRAINE	490	214	276	256	104	152	234	110	124	0	0	0	0	0	0
UNITED KINGDOM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2268	1508	760	1426	1034	392	838	471	367	4	3	1	0	0	0

Wildlife: excluding bats
I /2005 (no.), I /2004 (no.): number of cases
Difference: no. of cases in I /2005 minus cases in I /2004

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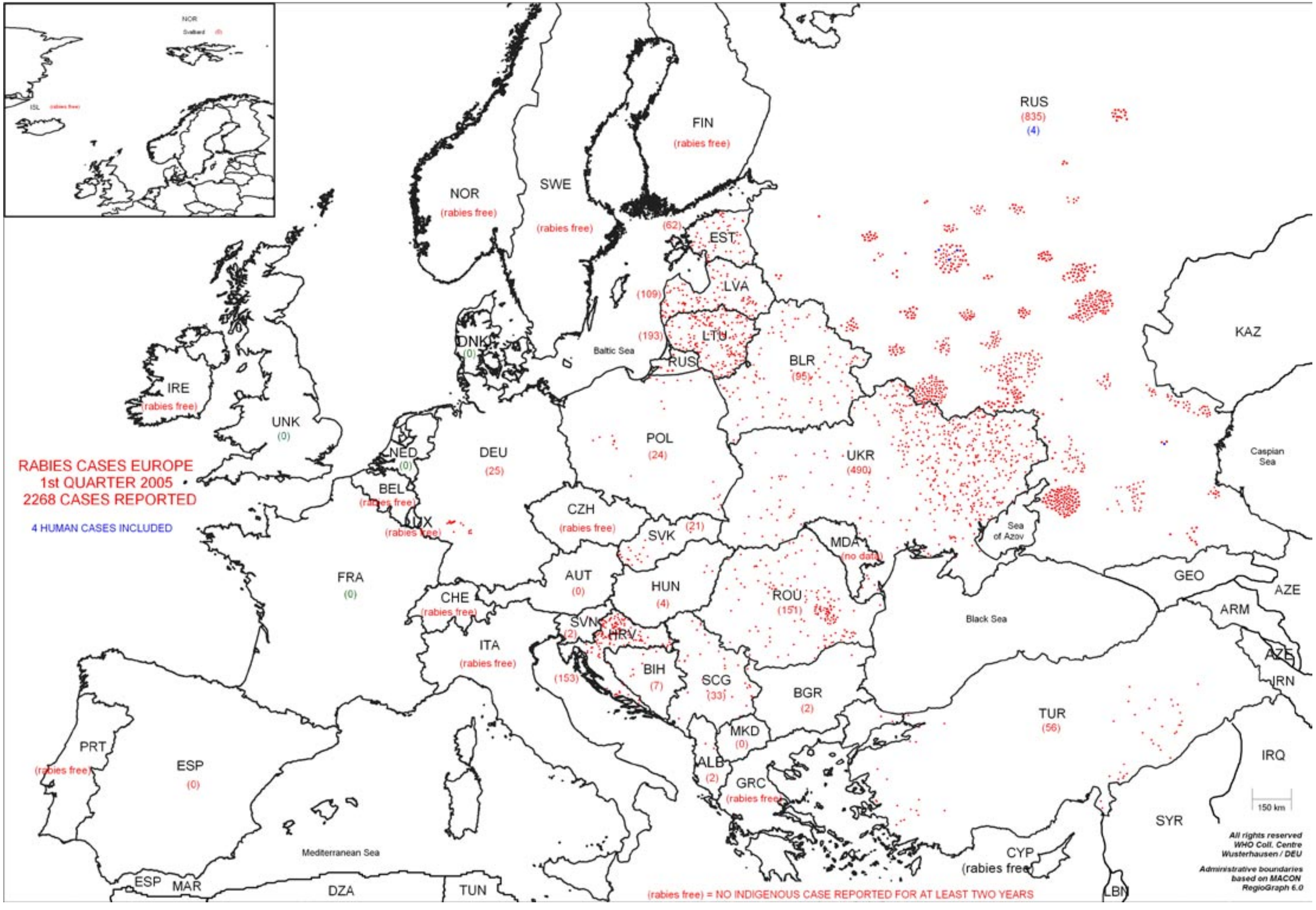
NOR
Svalbard (0)
ISL (rabies free)
RABIES CASES EUROPE
1st QUARTER 2005
2268 CASES REPORTED
4 HUMAN CASES INCLUDED
NOR
(rabies free)
SWE
(rabies free)
FIN
(rabies free)
RUS
(835)
(4)
(62)
EST
LVA
(109)
LTU
(193)
RUS
DNK
(0)
Baltic Sea
BLR
(95)
KAZ
IRE
(rabies free)
UNK
(0)
NED
(0)
DEU
(25)
POL
(24)
UKR
(490)
Caspian Sea
BEL
(rabies free)
LUX
(rabies free)
CZH
(rabies free)
SVK
(21)
Sea of Azov
MDA
(no data)
FRA
(0)
AUT
(0)
HUN
(4)
ROU
(151)
GEO
AZE
ARM
Black Sea
CHE
(rabies free)
SVN
(2)
HRV
ITA
(rabies free)
BIH
(7)
(153)
SCG
(33)
AZE
IRN
BGR
(2)
TUR
(56)
PRT
(rabies free)
ESP
(0)
MKD
(0)
ALB
(2)
GRC
(rabies free)
IRQ
150 km
SYR
Mediterranean Sea
CYP
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