RABIES BULLETIN EUROPE

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1. EDITORIAL

In this issue, we present the rabies situation in Europe. We also have introduced a few changes in the way the data are presented to make the interpretation of the European rabies data clearer.

With regard to the importance of bat rabies, from this issue on you will no longer find European Bat Lyssavirus (EBL) infections in bats under “wildlife”. Instead, they will be listed in a separate category “bats”. EBL infections in other animal species and in humans will be marked accordingly.

In the last issue of each year, you will find data on the number of animals tested for each country and on the bat species diagnosed with rabies.

The Rabies Bulletin Europe now is structured more clearly by means of tables. Nevertheless, the table “Summary of Rabies Cases in Europe” also provides room for details on specific rabies cases and on the situation in individual countries. Following this table you will find the section “Amendments to previous issues”. If required, in this section data and modifications to data from previous quarters reported after publication of the previous issue will be listed.

This issue also contains an appreciation of the work of Dr. Müller, former editor of the Rabies Bulletin Europe, and of his colleague Dr. Cox in recognition of their life's work on rabies.
Another paper by J. Barrat reports the results of the European interlaboratory F.A.T.-comparison test 2001.
In the third article, Y.T. Arai *et al.* propose a new genotype for the Lyssavirus genus, the Aravan virus. The findings presented in this paper have important implications for the epidemiology and diagnostics of bat rabies and for public health with respect to this disease. The abstract is a reprint of a paper recently published in Emerging Infectious Diseases.

Carsten J. Pötzsch

2. SUMMARY OF RABIES CASES IN EUROPE

RABIES CASES *1st QUARTER 2003* **01.01.03 -31.03.03**

Name	Code	Total	Wildlife	Domestic animals	Bats	Human	Remarks
ALBANIA	ALB	**2**	2	0	0	0	
AUSTRIA	AUT	**0**					no cases
BELARUS	BLR	**380**	290	90	0	0	
BELGIUM	BEL	**0**					rabies free
BOSNIA AND HERCEGOVINA	BIH	**31**	26	5	0	0	
BULGARIA	BUL	**6**	5	1	0	0	
CROATIA	HRV	**254**	245	9	0	0	
CYPRUS	CYP	**0**					rabies free
CZECH REPUBLIC	CZH	**0**					no cases
DENMARK	DNK	**0**					no cases
ESTONIA	EST	**238**	213	25	0	0	
FED. REP. OF YUGOSLAVIA	YUG	**77**	64	13	0	0	
FINLAND	FIN	**0**					rabies free
FRANCE	FRA	**1**	0	0	1	0	
GERMANY	DEU	**8**	8	0	0	0	
GREECE	GRC	**0**					rabies free
HUNGARY	HUN	**64**	47	17	0	0	
ICELAND	ISL	**0**					rabies free
IRELAND	IRE	**0**					rabies free
ITALY	ITA	**0**					rabies free
LATVIA	LVA	**221**	198	23	0	0	
LITHUANIA	LTU	**235**	190	45	0	0	
LUXEMBOURG	LUX	**0**					rabies free
MACEDONIA	MKD						no data
MOLDOVA	MDA	**9**	5	4	0	0	
NETHERLANDS	NED	**1**	0	0	1	0	
NORWAY	NOR	**0**					rabies free
POLAND	POL	**167**	149	18	0	0	
PORTUGAL	PRT	**0**					rabies free
ROMANIA	ROU	**13**	9	4	0	0	
RUSSIAN FEDERATION	RUS	**1130**	622	508	0	0	
SLOVAK REPUBLIC	SVK	**130**	110	20	0	0	
SLOVENIA	SVN	**2**	2	0	0	0	
SPAIN	ESP	**0**					no cases
SWEDEN	SWE	**0**					rabies free
SWITZERLAND + LIEC.	CHE	**0**					no cases
TURKEY	TUR	**40**	6	34	0	0	
UKRAINE	UKR	**621**	322	297	0	2	see "Amendments ..."
UNITED KINGDOM	UNK	**0**					no cases
total		**3630**	**2513**	**1113**	**2**	**2**	

Wildlife: **excluding bats**
Remarks: **rabies free: no indigenous case reported for at least two years (rabies free according to WHO definition)**

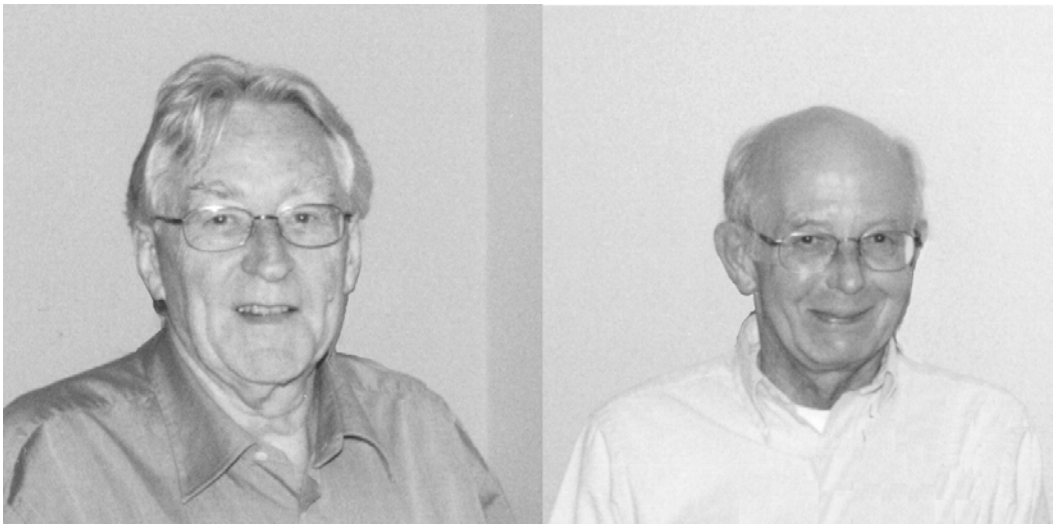
Amendments to previous issues:

1. The human rabies case in Ukraine (Luganskaja o.) in the 4th quarter 2002 was of the bat rabies type
2. Another human case occurred in Nikolayevskaja o./Ukraine in the 2nd quarter 2002

3. MISCELLANEOUS ARTICLES

3.1 Recognition Dr. W.W. Müller and Dr. J. H. Cox

At the end of March this year two scientists, Dr. James H. (Jim) Cox and Dr. Winfried Müller, retired at the Institute of Immunology, Federal Research Centre of Virus Diseases of Animals in Tuebingen. The names of these colleagues are closely related with important achievements in rabies virus research and with the success story of rabies control.



Jim Cox was born in Shreveport, Louisiana, USA and held a Bachelor of Science degree when he decided to continue his scientific career in Germany where he developed new roots in Tübingen. After interplays at the University of Tübingen and the Max-Planck-Institute for Viral Research he joined the rabies group at the Federal Research Center in Tübingen, where

rabies virus research had been established in the 1960's by Dr. Lothar Schneider. Jim Cox started his work just in time to significantly contribute to further work on the analysis of the viral proteins, the establishment of serological tests for characterizing the various rabies virus strains and the introduction of tissue culture methods to replace time-consuming animal experiments. His wealth of experimental knowledge, his intense concentration on particular problems to be solved and his calm way made him an essential member of this lively research team.

The principle goal in the 1980's was the oral immunization of foxes against rabies in which Jim Cox played a decisive role. A further aspect of research at that time was the production and testing of monoclonal antibodies against various rabies virus components. This was a powerful tool for the diagnosis and characterization of rabies virus stains and played an essential role in establishing the safety of the SAD B19 vaccine strain.

In 1983 an experienced veterinary

researcher joined the rabies working group in Tuebingen, then still led by Lothar Schneider. The long-haired Winfried Müller, born in the Harz area in northern Germany, was a wide-traveled professional. After having received his doctoral degree, he soon specialized in tropical veterinary medicine consequently resulting in a fifteen year period of work in Kenya, Jordan, Botswana, Iraq and Burma.

The first German field trials aiming at the elimination of rabies virus were initiated in 1983 using the Tübingen SAD B19 modification of the Swiss SAD Berne strain. The oral immunization of foxes has been an overwhelming success throughout western Europe and it is realistic to prophesy the elimination of European wild-life rabies in the near future.

From 1983 on until the disbandment of the rabies group in 2003 due to their retirement, Jim Cox and Winfried Müller worked closely together for exactly 20 years. From the outside they appeared as “rabies siblings” although definitely not “Siamese twins”. They perfectly divided their fields of expertise; Jim Cox working in the laboratory and Winfried Müller being responsible for the establishment and maintenance of the Rabies Bulletin Europe. However, exactly knowing what was going on in the neighbors turf, it was inevitable that they even chose to share the same office.

This is not the stage to mention all achievements of rabies virus research in Tübingen since the installment of this group – literature perfectly reflects this. However, one highlight of the research by Jim Cox should be pointed out revealing an amazing and unexpected finding. Examining serum samples from spotted hyenas of the Serengeti National Park in Tanzania, more than one third of the animals tested were found to have significant levels of rabies virus neutralizing antibodies. Using the RT-PCR method, which Jim Cox had established in the lab in the 1990’s, viral RNA could be detected in saliva samples indicating a carrier state. None of the animals tested showed clinical symptoms and none died of rabies. This was the first report of a non-lethal rabies infection in a wild-living carnivore.

Over the years the Rabies Bulletin nurtured by Winfried Müller found its popular reception and became a very important source of information not only for scientists in the field but also for many people in charge of the decision making to combat the disease. Winfried Müller was not only intensely involved in the organization of platforms of information, but also contributed his knowledge obtained during the German rabies eradication campaign to efforts to orally vaccinate dogs in Turkey, a project sponsored by the WHO and financed by the EU.

All information on rabies epidemiology and rabies eradication programs were regularly reported by the Bulletin, which recently was also made available online.

All collaborators, colleagues and friends wish Jim Cox and Winfried Müller an as successful and happy life as pensioners, enjoying traveling and reading (nice books), as they had as scientists.

Prof. Dr. Lothar Stitz

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3.2 European interlaboratory F.A.T. comparison test 2001

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During recent meetings of "Rabies control in Middle and East European countries", it was decided to establish a regular interlaboratory testing for rabies diagnosis. This paper presents how the test has been prepared and the first results obtained in this test.

1 Recommended techniques used for laboratory diagnosis of rabies

The 4th edition of WHO "Laboratory techniques in rabies" and the "Manual of standards for diagnostic tests and vaccines" edited by OIE recommend different tests for routine rabies diagnosis.

Rabies diagnosis cannot be based on a simple clinical examination of suspected animals. Some symptoms are quite characteristic of rabies (like the bi-tonal barking of a rabid dog) but most often they are signs of a non specific nervous disease (wild animals without fear of man, difficulties in swallowing, …). Another point is that these signs may not be observed on a rabid animal.

The only way to be sure of a diagnosis of rabies is to use laboratory techniques. These are used to detect the virus itself, some of its components or tracks of its replication in infected tissues.

Historically, histological methods have been used to detect the Negri bodies. These intra-cytoplasmic acidophilic inclusions are specific of rabies. They correspond to a matrix containing a big quantity of N protein. So, these techniques (as Mann's or Seller's ones) are based on a non-specific tinctorial affinity to detect specific organites. Like for every histological method, the main withdraw of these techniques is that it needs fresh material to produce a reliable result.

1.1 Detection of rabies antigen

Different immuno-chemical methods have been developed to detect the virus or its antigens. The most used test is the fluorescent antibody test (FAT). The general principle is to apply on a fixed specimen a specific conjugate. This antibody is generally coupled to fluorescein isothiocyanate, it may be a polyclonal one or a mix of monoclonal ones.

This test is the central technique of laboratory diagnosis of rabies because it gives alone a diagnosis and it is also used to confirm rabies in the inoculation tests.

1.2 Detection of rabies virus replication: inoculation tests

The other group of available techniques aim at detecting the replication of the virus on living substrates, i.e. cells or mice.

In mice rabies induces clinical signs that are relatively typical but it is better to confirm with a FAT control on the first mouse.

In cells, rabies virus grows generally without cytopathic effect, once again it is necessary to use FAT to confirm the presence of rabies virus in cells.

2 What is the interrest of interlaboratory tests in rabies diagnosis?

The general principle that was decided during the meeting in Zagreb is the following:

1) Every participating country nominates a national reference laboratory for rabies diagnosis.
2) This laboratory will participate to the test
3) If there are regional laboratories in the country, this national laboratory will organise tests for them.

3 Preparation of the test

3.1 The prerequisites

- This test is the first step of rabies diagnosis interlaboratory testing; the next one will be the control of inoculation tests. It is then necessary that the panel of test specimens may be used indifferently for FAT and inoculation tests. *Consequence: the panel should be prepared with non inactivated material.*
- To be close to real conditions different "titres" must exist in the panel. *Consequence: it is necessary to prepare homogenates of infected material in non-infected brain material used as diluant.*
- To be close to real conditions different "strains" and genotypes must exist in the panel. *Consequence: the panel should include different strains that are collected in Europe.*
- All laboratories must receive identical parts of the same test preparation. *Consequence: central preparation and testing of the panels.*
- The panel should be easy to send and it should be prepared in a way that makes it as independent from cold and speed of transport as possible. *Consequence: the test preparation should be freeze-dried.*

3.2 Choice of strains

The following rabies virus strains have been selected for the interlaboratory F.A.T. comparison test 2001:

- A fox strain isolated in the field in France in 1986 and maintained by serial passages on fox since then. This strain belongs to genotype 1.
- A polar fox strain isolated in Estonia in 1996. This strain belongs to genotype 1.
- A bat strain isolated in France and characterised as EBL1b.
- An atypical fox strain isolated in Eastern Germany, genotype 1.

3.3 Choice of the dilution medium and dilution method

The fox strain was obtained from the brain of control foxes inoculated with a fox street strain maintained by serial passages on foxes during a challenge. After collection, brains have been kept in deep freezer. The other strains have been produced by intra-cranial inoculation to mice; this corresponds to the first passage from the original specimen.

In this FAT test, we decided to dilute positive brain material to make different "titres" (i.e. to prepare strong and weak specimens) because it is the best way to be sure that all participants to the test will receive identically infected tissues. It is also a way to include in the test the making of the smear and the fixation step, which should not have been possible if the panel was constituted of already fixed slides ready to stain. Moreover, homogenizing the material is a better way to obtain identical aliquots than to prepare prints or smears on glass slides from an infected piece of brain.

The choice of the dilution substrate was made according to the following points:

- rabies diagnosis is carried out on brain tissue
- rabies is maintained by red fox in Europe hence, fox is the most often tested species.

Consequently, the dilution substrate is made of negative fox brain tissue that is homogenised manually with mortar and pestle with the different positive brain tissues. This way, it is easy to prepare strong and weak specimens.

3.4 Constitution of the test panels

Once a batch of a test preparation is ready, the whole homogenate is aliquoted and freeze-dried. After control of the final product, this batch may be sent for testing.
Each panel comprises:

- Three control tubes: a negative, a strong positive and a weak positive.

- Eight test tubes: three negative ones, a strong positive and a weak positive fox strain, "medium positive" with atypical fox strain, polar fox strain and bat strain (EBL1). Each test tube of the panel was coded and the codes are changed between panels.

4 Results of the test

As it was stated above, national reference laboratories for rabies diagnosis have been identified in 16 countries. All of them have been contacted to send us import licence that must be included in the interlaboratory test panel.

Sixteen national reference and voluntary laboratories sent an import licence and received a test panel.

The participants were asked to test the panel twice during two different diagnosis sessions and to provide us a copy of the technical procedure routinely followed in the laboratory. Three countries tested the panel according to two procedures (with two different conjugates or two concentrations of the conjugate).

The global analysis of results is summarised in Table 1.

Table 1: Global results of the interlaboratory tests

Country code	Number of tests	Correlation between the two tests	Errors in controls	Errors in tests
A	1	-na-	0	negative
B	2	good	0	0
C1	2	good	0	fox weak positive atypical fox strain
C2	2	1 discrepancy in controls	weak positive	EBL1 fox weak positive
D	1	-na-	0	0
E	2	good	0	0
F1	2	good	0	0
F2	2	good	0	0
G	2	1 discrepancy in test	0	negative
H	1	-na-	0	2 negative fox weak positive
I	2	good	0	0
J1	2	good	0	0
J2	2	good	0	0
K	2	good	0	0
L	2	good	0	0
M	2	good	0	0
N	2	good	0	0
O	2	good	0	0
P	2	good	0	0

The summary of this shows that 5 out of the 16 laboratories (or out of the 19 procedures tested) made errors.

Four false positive diagnoses were made in 3 different laboratories.

The errors in positive samples correspond to fox strain weak positive (3 test slides and one control slide), EBL1 or atypical fox strain. These samples may be more difficult to stain with some conjugates that have been diluted or that have not a large enough range of detection.

These data could have been correlated with the examination of detailed technical procedures. Unfortunately, only 6 of them have been received so far.

5 Summary of the last technical questionnaire (presented in Zagreb, 1998)

5.1 Analysis of answers

The reliability of experimental diagnosis of rabies depends mainly on the regular practice of the techniques. Which means that if training technicians is important, it is as important to maintain this trained status by the regular practice and by regular quality control of the work performed.

I.e. a more or less centralised structure of experimental diagnosis in the country is necessary because it is the only way to allow a daily practice of the tests.

5.1.1 Technicians performing the diagnosis

31 laboratories answered to this part of the questionnaire. In 21 laboratories less that 5 technicians are involved in rabies diagnosis, which should allow a regular training and so the reliability of diagnosis.

Only 2 laboratories have „full time“ technicians. Most often (16/31) rabies diagnosis is a part of the activity of the technicians (generally more than 75%). The other activities of these technicians consist principally in other diagnosis work.

5.1.2 Fluorescent antibody test

The **number of examinations** performed in a laboratory ranges between 150 and 3500 in the rabies infected countries (i.e. .between one diagnosis every other day and 9 every day). The "low" daily activity is also a financial problem regarding the conservation of diagnosis conjugate because the use-by date will be reached before the end of the vial.

Most often, the fluorescent antibody test is performed on an impression of brain material (23/27), smears are prepared in 13 laboratories. Nine laboratories use both impression and smears. Both techniques suppose that the specimen is in a good state to make a thin smear/impression that will be easy to examine and so FAT will be more reliable. The study of discrepancies between techniques when FAT and mouse inoculation test or FAT and cell culture test are used shows that the percentage of discrepancies is significantly higher when specimens are autolysed than when they are in a good state.

Different sections are routinely examined. Ammon’s horn is tested in 26 laboratories, cerebellum in 19, medulla oblongata in 19 and cortex in 15. Twenty-three laboratories examine at least Ammon’s horn with other parts of brain. Four out of 23 laboratories examine routinely salivary glands.

Once the slide is prepared, fixation is performed. **Fixation** is easier for thin specimens that have been allowed to dry correctly on the slide; once again the importance of the state of conservation appears. To obtain this it is very important to avoid any autolyse between the discovery of the animal and the diagnosis, i.e. rapid transport with cold chain to the laboratory. Twenty-four laboratories fix the slides in acetone, 7 heat the slide to fix the specimen. Two laboratories use both heat and acetone fixation. When acetone is used, the fixation time ranges between 5 minutes and 4 hours, 10 out of 21 laboratories fix for 30 minutes. The fixation is generally made around –20°C (14 laboratories out of 21), 4 laboratories fix at room temperature. Acetone bath is changed daily (8/21), twice a week (3/21), weekly (6/21), twice a month (3/21) or monthly (1/21), generally the higher is the number of diagnosis performed, the more frequent is the changing of acetone.

Twenty six laboratories use a commercial **conjugate**. Twenty three of them use it at the „normal“ dilution, 3 dilute the reconstituted conjugate more then it is recommended by the producer. It is a classical way to spare money but some "over-diluted" conjugates are not stable and must be used on the first day.

Eleven out of 15 lab use glycerol associated with a buffer as **mounting medium** for the slides. The pH of this medium is generally set around 7.0, which is not the optimal pH for fluorescence of FITC (>8.5); only 3 laboratories use such an alkaline mounting medium.

The **microscopes** used to examine these slides are generally equipped with a mercury bulb (23/27). Halogen bulbs are used only in 7 laboratories. Both bulbs are suitable for FITC which is excited by blue

light (490nm). The objective magnification ranges between 10 and 100. Fifteen laboratories use magnification less than 50 which will give a clear image even with thick specimens that cannot be clearly read clearly with a 90X or 100X magnification objective. The eyepiece magnification ranges between 4 and 13, which gives a global magnification ranging between 100 and 1000. The „mean“ combination is 10X eyepiece associated with a10 to 40X objective.

The slides are generally examined by 2 technicians (13/22). This **double reading** is a good way to have a reliable diagnosis. The stained and examined slides are kept for at least 1 month (up to 24).

A **"safety“ sample** is collected by 23/25 laboratories. This sample is generally kept frozen (-20°C) for at least 1 month (up to 24).

Seven countries that perform or have performed oral vaccination campaigns look for the possibility of vaccine induced rabies. This test is made in the laboratory that performs the diagnosis.

Different **controls** may be used to validate the fluorescent antibody test :

- Positive CVS controls (mouse brain) are used by 18/24 laboratories.
- A positive specimen from the day before is used as a control by 14/23 laboratories.
- A negative control (mouse brain) is used by 11/22 laboratories.
- A negative specimen from the day before is used as a control by 11/22 laboratories

These controls are used in every staining process by 16/21 laboratories. Others use controls once or twice a week or once or twice a month.

5.2 Minimum requirements

To compare results of rabies surveillance, correlation of results is the first thing to assess. The standardisation of the techniques is the second step.

With respect to diagnostic procedures, there exist three main international references dealing with laboratory techniques in rabies which can be regarded as the current standard works of rabies diagnostics. Based on ongoing developments in the field of diagnostic research the recommendations given there are permanently brought up to date:

- Meslin, F.-X., M.M. Kaplan, and H. Koprowski (1996),WHO, Laboratory techniques in rabies, 4th edition, Geneva,
- O.I.E. Manual of standards for diagnostic tests and vaccines (2000),

The widest spectrum of diagnostic standard tests is presented by the WHO with detailed information concerning preconditions to be needed, materials and methods and comprehensive discussions on the advantages and disadvantages of the tests available.

Fluorescence antibody test minimum requirements:

- The suitability of an anti-rabies conjugate to be used for FAT in rabies routine diagnosis has to be proven with respect to its sensitivity and specificity.
- Commercially available anti-rabies conjugates should be diluted according to the producers instruction, especially when it contains of a mix of monoclonal antibodies.
- Positive and negative controls should be used in every staining process.
- Rabies-positive samples have to be proven for the presence of vaccine or field induced rabies.

The regular daily practice of FAT is the only way to maintain the quality of rabies diagnosis. That is why a centralised structure is necessary. It is much better to have one national lab that performs 5 diagnosis a day than 10 regional labs that receive 1 specimen every other day. This structure is also a good way to use expensive reagents like conjugate completely before the expiry date.

6 Conclusion

This first interlaboratory test for rabies diagnosis was long to begin but it may now be regularly maintained on an annual basis for instance according to the following agenda:

1. first quarter: reception of the import licences
2. second quarter: sending panels and reception of results with a second import licence (for a possible second panel)
3. third quarter: analysis of results and possible second test if needed.
4. end of the year: global analysis.

Acknowledgement

The authors acknowledge the different participating laboratories that accepted to pass the test, E. Picard who made the molecular typing of the different strains and C. Patron and E. Tissot who helped us in the "blind" testing of the panel.

3.3 New Lyssavirus Genotype from the Lesser Mouse-eared Bat (*Myotis blythi*), Kyrghyzstan

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Abstract

The Aravan virus was isolated from a Lesser Mouse-eared Bat *(Myotis blythi)* in the Osh region of Kyrghyzstan, central Asia, in 1991. We determined the complete sequence of the nucleoprotein (N) gene and compared it with those of 26 representative lyssaviruses obtained from databases. The Aravan virus was distinguished from seven distinct genotypes on the basis of nucleotide and amino acid identity. Phylogenetic analysis based on both nucleotide and amino acid sequences showed that the Aravan virus was more closely related to genotypes 4, 5, and—to a lesser extent—6, which circulates among insectivorus bats in Europe and Africa. The Aravan virus does not belong to any of the seven known genotypes of lyssaviruses, namely, rabies, Lagos bat, Mokola, and Duvenhage viruses and European bat lyssavirus 1, European bat lyssavirus 2, and Australian bat lyssavirus. Based on these data, we propose a new genotype for the *Lyssavirus* genus.

This abstract is a reprint from:

Arai YT, Kuzmin IV, Kameoka Y, Botvinkin AD. 2003. New lyssavirus genotype from the lesser mouse-eared bat (*Myotis blythi*), Kyrghyzstan. Emerging Infectious Diseases, 9(3). 333-337. URL: http://www.cdc.gov/ncidod/EID/vol9no3/02-0252.htm

4. Description of Rabies Cases in Europe

4.1 Rabies cases, 1st quarter 2003

01.01.03 -31.03.03

Location		Domestic animals									Wildlife																	
Code	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	bats	Human cases	total
ALB	ALBANIA	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**
AUT	AUSTRIA *									**0**														**0**			**0**
BEL	BELGIUM *									**0**														**0**			**0**
BIH	BOSNIA A HERCEGOVINA	2	0	3	0	0	0	0	0	**5**	26	0	0	0	0	0	0	0	0	0	0	0	0	**26**	0	0	**31**
BUL	BULGARIA	0	0	0	0	1	0	0	0	**1**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**6**
BLR	BELARUS	48	35	6	1	0	0	0	0	**90**	259	21	0	7	1	0	0	0	0	0	0	0	2	**290**	0	0	**380**
HRV	CROATIA	6	2	0	0	1	0	0	0	**9**	244	0	0	0	1	0	0	0	0	0	0	0	0	**245**	0	0	**254**
CYP	CYPRUS *									**0**														**0**			**0**
CZH	CZECH REPUBLIC *									**0**														**0**			**0**
DNK	DENMARK *									**0**														**0**			**0**
EST	ESTONIA	14	6	4	0	1	0	0	0	**25**	118	92	0	0	1	0	1	0	0	0	0	0	1	**213**	0	0	**238**
YUG	FED.REP. OF YUGOSL	5	7	0	0	1	0	0	0	**13**	63	0	0	0	0	1	0	0	0	0	0	0	0	**64**	0	0	**77**
FIN	FINLAND *									**0**														**0**			**0**
FRA	FRANCE	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	1	0	**1**
DEU	GERMANY	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**
GRC	GREECE *									**0**														**0**			**0**
HUN	HUNGARY	2	2	13	0	0	0	0	0	**17**	46	0	0	0	0	0	0	0	0	0	1	0	0	**47**	0	0	**64**
IRE	IRELAND *									**0**														**0**			**0**
ISL	ICELAND *									**0**														**0**			**0**
ITA	ITALY *									**0**														**0**			**0**
LTU	LITHUANIA	17	18	7	1	0	0	2	0	**45**	107	57	0	0	0	17	3	1	0	2	0	0	3	**190**	0	0	**235**
LUX	LUXEMBOURG *									**0**														**0**			**0**
LVA	LATVIA	13	7	3	0	0	0	0	0	**23**	140	54	0	0	1	2	0	1	0	0	0	0	0	**198**	0	0	**221**
MDA	MOLDOVA	0	1	3	0	0	0	0	0	**4**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**9**
MKD	MACEDONIA **																										
NED	NETHERLANDS	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	1	0	**1**
NOR	NORWAY *									**0**														**0**			**0**
POL	POLAND	7	9	2	0	0	0	0	0	**18**	123	16	0	0	0	8	0	0	0	2	0	0	0	**149**	0	0	**167**
PRT	PORTUGAL *									**0**														**0**			**0**
ROU	ROMANIA	1	1	0	0	2	0	0	0	**4**	8	0	0	0	0	0	0	0	0	1	0	0	0	**9**	0	0	**13**
RUS	RUSSIAN FEDERATION	253	103	118	3	12	14	5	0	**508**	593	12	0	4	1	7	3	1	0	1	0	0	0	**622**	0	0	**1130**
ESP	SPAIN *									**0**														**0**		0	**0**
SVK	SLOVAK REPUBLIC	10	7	1	0	1	0	1	0	**20**	107	0	0	0	0	2	0	1	0	0	0	0	0	**110**	0	0	**130**
SVN	SLOVENIA	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**
SWE	SWEDEN *									**0**														**0**			**0**
CHE	SWITZERLAND + LIEC. *									**0**														**0**			**0**
TUR	TURKEY	17	2	14	1	0	0	0	0	**34**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**40**
UNK	UNITED KINGDOM *									**0**														**0**		0	**0**
UKR	UKRAINE	121	127	42	3	3	1	0	0	**297**	298	2	6	6	0	7	0	0	1	0	0	0	2	**322**	0	2	**621**
TOTAL		**516**	**327**	**216**	**9**	**22**	**15**	**8**	**0**	**1113**	**2160**	**254**	**6**	**17**	**5**	**44**	**7**	**4**	**1**	**6**	**1**	**0**	**8**	**2513**	**2**	**2**	**3630**
PER CENT		14.2%	9.0%	6.0%	0.2%	0.6%	0.4%	0.2%	0.0%	30.7%	59.5%	7.0%	0.2%	0.5%	0.1%	1.2%	0.2%	0.1%	0.0%	0.2%	0.0%	0.0%	0.2%	69.2%	0.1%	0.1%	100%

* NO CASES ** NO DATA

4.2 Rabies cases per country and administrative units, 1st quarter 2003

01.01.03 -31.03.03

Location	Domestic animals									Wildlife													bats	Human cases	total
	dog	cat	cattle	equine	goat sheep	pig	stray dog	other	subtotal	fox	racoon dog	racoon	wolf	badger	marten	other musteldes	other carnivores	wild boar	roe deer	red deer	fallow deer	other	subtotal			
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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
BELARUS																										
Brest	1	1	0	0	0	0	0	0	**2**	17	1	0	1	0	0	0	0	0	0	0	0	0	**19**	0	0	**21**
Vitebsk	24	22	3	0	0	0	0	0	**49**	76	14	0	0	0	0	0	0	0	0	0	0	1	**91**	0	0	**140**
Gomel	3	5	2	0	0	0	0	0	**10**	23	1	0	6	0	0	0	0	0	0	0	0	0	**30**	0	0	**40**
Grodn	1	1	0	0	0	0	0	0	**2**	42	0	0	0	0	0	0	0	0	0	0	0	0	**42**	0	0	**44**
Minsk	14	5	1	1	0	0	0	0	**21**	78	3	0	0	0	0	0	0	0	0	0	0	0	**81**	0	0	**102**
Mogelov	5	1	0	0	0	0	0	0	**6**	23	2	0	0	1	0	0	0	0	0	0	0	1	**27**	0	0	**33**
TOTAL	**48**	**35**	**6**	**1**	**0**	**0**	**0**	**0**	**90**	**259**	**21**	**0**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**290**	**0**	**0**	**380**
PER CENT	12.6%	9.2%	1.6%	0.3%	0.0%	0.0%	0.0%	0.0%	23.7%	68.2%	5.5%	0.0%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	76.3%	0.0%	0.0%	100%
BOSNIA AND HERZEGOVINA																										
Bihać	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**
Breza	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**
Goražde	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**
Jablanica	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**
Konjic	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**
Mostar	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**
Široki Brijeg	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**
Tuzla	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**
Vitez	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**
REPUBLIKA SRPSKA																										
Banja Luka	1	0	0	0	0	0	0	0	**1**	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**9**
Laktasi	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**
Novi Grad	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**
Prijedor	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**
Rogatica	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**
K. Dubica	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	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**5**	**26**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**31**
PER CENT	6.5%	0.0%	9.7%	0.0%	0.0%	0.0%	0.0%	0.0%	16.1%	83.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.9%	0.0%	0.0%	100%
NETHERLANDS																										
Utrecht/Gelderland	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	1	0	**1**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
PER CENT	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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%	100%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife															bats	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			
CROATIA																											
Zagrebacka	1	0	0	0	0	0	0	0	**1**	25	0	0	0	0	0	0	0	0	0	0	0	0	**25**	0	0	**26**
Krapinsko-zagorska	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**
Sisacko-moslavacka	0	0	0	0	0	0	0	0	**0**	67	0	0	0	1	0	0	0	0	0	0	0	0	**68**	0	0	**68**
Karlovacka	0	0	0	0	0	0	0	0	**0**	28	0	0	0	0	0	0	0	0	0	0	0	0	**28**	0	0	**28**
Koprivnicko-križevacka	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**
Bjelovarsko-bilogorska	1	0	0	0	0	0	0	0	**1**	13	0	0	0	0	0	0	0	0	0	0	0	0	**13**	0	0	**14**
Dubrovacko-neretvanska	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**
Licko-senjska	0	1	0	0	0	0	0	0	**1**	12	0	0	0	0	0	0	0	0	0	0	0	0	**12**	0	0	**13**
Viroviticko-podravska	0	0	0	0	1	0	0	0	**1**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**7**
Požeško-slavonska	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**
Brodsko-posavska	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**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**6**
Osjecko-baranjska	2	0	0	0	0	0	0	0	**2**	10	0	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**12**
Šibensko-Kninska	1	0	0	0	0	0	0	0	**1**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**5**
Varaždinska	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**
Vukovarsko-srijemska	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**
Splitsko-dalmatinska	0	0	0	0	0	0	0	0	**0**	12	0	0	0	0	0	0	0	0	0	0	0	0	**12**	0	0	**12**
Grad Zagreb	0	1	0	0	0	0	0	0	**1**	18	0	0	0	0	0	0	0	0	0	0	0	0	**18**	0	0	**19**
Istarska	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**
TOTAL	**6**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**9**	**244**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**245**	**0**	**0**	**254**
PER CENT	2.4%	0.8%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	3.5%	96.1%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	96%	0.0%	0.0%	100%
FEDERAL REPUBLIC OF GERMANY																											
Hessen	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**	**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**
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%
MOLDOVA																											
Belts	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**
Edinets	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**
Grigoriopoli	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**
Kichinev	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**
Ohei	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**
Soroca	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**
Taraclia	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**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**4**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**9**
PER CENT	0.0%	11.1%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	44.4%	55.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued) **01.01.03 -31.03.03**

Location	*Domestic animals*									*Wildlife*														bats	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			
E S T O N I A																										
Harjumaa	1	2	0	0	0	0	0	0	**3**	26	14	0	0	0	0	0	0	0	0	0	0	0	**40**	0	0	**43**
Hiiumaa	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**
Ida-Virumaa	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**
Järvamaa	0	1	0	0	0	0	0	0	**1**	3	4	0	0	0	0	0	0	0	0	0	0	1	**8**	0	0	**9**
Jõgevamaa	1	0	0	0	0	0	0	0	**1**	7	8	0	0	0	0	0	0	0	0	0	0	0	**15**	0	0	**16**
Läänemaa	1	0	0	0	0	0	0	0	**1**	7	1	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**9**
Lääne-Virumaa	1	1	0	0	0	0	0	0	**2**	13	20	0	0	0	0	0	0	0	0	0	0	0	**33**	0	0	**35**
Pärnumaa	0	0	0	0	0	0	0	0	**0**	5	3	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**8**
Põlvamaa	2	0	0	0	1	0	0	0	**3**	8	3	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**14**
Raplamaa	2	1	2	0	0	0	0	0	**5**	15	10	0	0	0	0	1	0	0	0	0	0	0	**26**	0	0	**31**
Saaremaa	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**
Tartumaa	3	0	1	0	0	0	0	0	**4**	13	16	0	0	1	0	0	0	0	0	0	0	0	**30**	0	0	**34**
Valgamaa	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**
Viljandimaa	1	0	0	0	0	0	0	0	**1**	5	6	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**12**
Võrumaa	2	0	0	0	0	0	0	0	**2**	6	4	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**12**
TOTAL	**14**	**6**	**4**	**0**	**1**	**0**	**0**	**0**	**25**	**118**	**92**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**213**	**0**	**0**	**238**
PER CENT	5.9%	2.5%	1.7%	0.0%	0.4%	0.0%	0.0%	0.0%	10.5%	49.6%	38.7%	0.0%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	89.5%	0.0%	0.0%	100%
H U N G A R Y																										
Bács-Kiskun	0	0	1	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Baranya	0	1	0	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Békés	0	1	0	0	0	0	0	0	**1**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**5**
Borsod-Abaúj-Zemplén	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**
Csongrád	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	2	0	11	0	0	0	0	0	**13**	13	0	0	0	0	0	0	0	0	0	0	0	0	**13**	0	0	**26**
Heves	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**
Jász-Nagykun-Szolnok	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**
Pest	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**
Szabolcs-Szatmár-Bereg	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**
Somogy	0	0	0	0	0	0	0	0	**0**	1	0	0	0	0	0	0	0	0	0	1	0	0	**2**	0	0	**2**
Tolna	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**
Vas	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**
Veszprém	0	0	1	0	0	0	0	0	**1**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**6**
TOTAL	**2**	**2**	**13**	**0**	**0**	**0**	**0**	**0**	**17**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**47**	**0**	**0**	**64**
PER CENT	3.1%	3.1%	20.3%	0.0%	0.0%	0.0%	0.0%	0.0%	26.6%	71.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	73%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife															bats	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			
L A T V I A																											
Aizkraukle	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**
Aluksne	0	0	0	0	0	0	0	0	**0**	5	4	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**9**
Balvi	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**
Bauska	1	0	0	0	0	0	0	0	**1**	15	3	0	0	0	0	0	0	0	0	0	0	0	**18**	0	0	**19**
Cesis	0	0	0	0	0	0	0	0	**0**	20	8	0	0	0	0	0	0	0	0	0	0	0	**28**	0	0	**28**
Daugavpils	0	0	1	0	0	0	0	0	**1**	4	1	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**6**
Dobele	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**
Gulbene	2	0	0	0	0	0	0	0	**2**	11	0	0	0	1	0	0	0	0	0	0	0	0	**12**	0	0	**14**
Jēkabpils	0	0	1	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Jelgava	0	1	0	0	0	0	0	0	**1**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**4**
Krāslava	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**
Kuldīga	0	0	0	0	0	0	0	0	**0**	5	5	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**10**
Liepājas	1	0	0	0	0	0	0	0	**1**	6	1	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**8**
Limbaži	0	0	0	0	0	0	0	0	**0**	6	1	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**7**
Ludza	0	1	0	0	0	0	0	0	**1**	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**4**
Madona	2	2	1	0	0	0	0	0	**5**	17	4	0	0	0	0	0	0	0	0	0	0	0	**21**	0	0	**26**
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	3	0	0	0	0	0	0	0	**3**	4	2	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**9**
Rēzekne	4	1	0	0	0	0	0	0	**5**	3	1	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**9**
Rīga	0	0	0	0	0	0	0	0	**0**	10	1	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
Saldus	0	0	0	0	0	0	0	0	**0**	2	9	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
Tukums	0	1	0	0	0	0	0	0	**1**	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**	0	0	**3**
Valka	0	0	0	0	0	0	0	0	**0**	7	0	0	0	0	1	0	1	0	0	0	0	0	**9**	0	0	**9**
Valmiera	0	1	0	0	0	0	0	0	**1**	3	5	0	0	0	0	0	0	0	0	0	0	0	**8**	0	0	**9**
Ventspils	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**
TOTAL	**13**	**7**	**3**	**0**	**0**	**0**	**0**	**0**	**23**	**140**	**54**	**0**	**0**	**1**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**198**	**0**	**0**	**221**
PER CENT	5.9%	3.2%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	10.4%	63.3%	24.4%	0.0%	0.0%	0.5%	0.9%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	90%	0.0%	0.0%	100%
S L O V E N I A																											
Spodnjeposavska	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%
F R A N C E																											
Gennes	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	1	0	**1**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
PER CENT	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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%	100%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife															bats	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			
YUGOSLAVIA																											
Serbia and Montenegro	5	7	0	0	1	0	0	0	**13**	63	0	0	0	0	1	0	0	0	0	0	0	0	**64**	0	0	**77**
TOTAL	**5**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**13**	**63**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**0**	**0**	**77**
PER CENT	6.5%	9.1%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	16.9%	81.8%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.1%	0.0%	0.0%	100%
TURKEY																											
Aydın	2	1	7	0	0	0	0	0	**10**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**12**
Balıkesir	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**
Bursa	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**
Çanakkale	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**
Elazığ	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**
Istanbul	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**
Izmir	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**
K.Maraş	2	0	0	1	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**3**
Kocaeli	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**
Muğla	0	0	6	0	0	0	0	0	**6**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**9**
Yalova	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	**17**	**2**	**14**	**1**	**0**	**0**	**0**	**0**	**34**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**40**
PER CENT	42.5%	5.0%	35.0%	2.5%	0.0%	0.0%	0.0%	0.0%	85.0%	15.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15%	0.0%	0.0%	100%
BULGARIA																											
Targovishte	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**
Vidin	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**
Velico Turnovo	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**
Vratsa	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**
Lovech	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**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**6**
PER CENT	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	16.7%	83.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife														bats	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**	2	0	0	0	0	0	0	0	0	1	0	0	0	**3**	0	0	**3**
Bihor	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**
Bistrita Nasaud	0	0	0	0	2	0	0	0	**2**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**4**
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**
Cluj	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**
Giurgiu	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	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**9**	**0**	**0**	**13**
PER CENT	7.7%	7.7%	0.0%	0.0%	15.4%	0.0%	0.0%	0.0%	30.8%	61.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	0.0%	69%	0.0%	0.0%	100%
POLAND																										
Dolnoslaskie	0	0	0	0	0	0	0	0	**0**	8	1	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**9**
Kujawsko-Pomorskie	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**
Lubelskie	0	0	0	0	0	0	0	0	**0**	9	0	0	0	0	2	0	0	0	0	0	0	0	**11**	0	0	**11**
Malopolskie	0	1	0	0	0	0	0	0	**1**	3	0	0	0	0	1	0	0	0	0	0	0	0	**4**	0	0	**5**
Mazowieckie	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**
Podkarpackie	1	3	0	0	0	0	0	0	**4**	8	0	0	0	0	2	0	0	0	0	0	0	0	**10**	0	0	**14**
Podlaskie	0	0	2	0	0	0	0	0	**2**	12	5	0	0	0	0	0	0	0	0	0	0	0	**17**	0	0	**19**
Pomorskie	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**
Swietokrzyskie	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**
Warminsko-Mazurskie	0	1	0	0	0	0	0	0	**1**	7	1	0	0	0	1	0	0	0	1	0	0	0	**10**	0	0	**11**
Wielkopolskie	6	4	0		0	0	0	0	**10**	69	9	0	0	0	2	0	0	0	1	0	0	0	**81**	0	0	**91**
TOTAL	**7**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**18**	**123**	**16**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**149**	**0**	**0**	**167**
PER CENT	4.2%	5.4%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	10.8%	73.7%	9.6%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	89%	0.0%	0.0%	100%
SLOVAKIA																										
Banskobystrický kraj	3	2	0	0	1	0	0	0	**6**	47	0	0	0	0	1	0	0	0	0	0	0	0	**48**	0	0	**54**
Bratislavský 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**
Kosický kraj	2	0	0	0	0	0	0	0	**2**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**3**
Nitriansky kraj	4	5	1	0	0	0	1	0	**11**	44	0	0	0	0	0	0	1	0	0	0	0	0	**45**	0	0	**56**
Presovský 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**
Trenciansky kraj	0	0	0	0	0	0	0	0	**0**	6	0	0	0	0	1	0	0	0	0	0	0	0	**7**	0	0	**7**
Trnavský kraj	1	0	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	**10**	**7**	**1**	**0**	**1**	**0**	**1**	**0**	**20**	**107**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**110**	**0**	**0**	**130**
PER CENT	7.7%	5.4%	0.8%	0.0%	0.8%	0.0%	0.8%	0.0%	15.4%	82.3%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	85%	0.0%	0.0%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife														bats	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			
LITHUANIA																										
Alytus	0	1	0	0	0	0	1	0	**2**	23	8	0	0	0	8	3	0	0	0	0	0	0	**42**	0	0	**44**
Kaunas	7	5	0	0	0	0	0	0	**12**	15	13	0	0	0	0	0	0	0	0	0	0	0	**28**	0	0	**40**
Klaipeda	1	2	0	0	0	0	1	0	**4**	11	9	0	0	0	0	0	0	0	2	0	0	2	**24**	0	0	**28**
Marijampole	0	0	0	0	0	0	0	0	**0**	2	1	0	0	0	3	0	0	0	0	0	0	0	**6**	0	0	**6**
Panvežys	0	1	0	0	0	0	0	0	**1**	8	2	0	0	0	4	0	1	0	0	0	0	0	**15**	0	0	**16**
Šiauliai	1	6	1	0	0	0	0	0	**8**	9	2	0	0	0	1	0	0	0	0	0	0	0	**12**	0	0	**20**
Taurage	1	2	3	0	0	0	0	0	**6**	13	5	0	0	0	0	0	0	0	0	0	0	0	**18**	0	0	**24**
Telšiai	0	0	2	0	0	0	0	0	**2**	3	1	0	0	0	1	0	0	0	0	0	0	0	**5**	0	0	**7**
Utena	4	1	0	0	0	0	0	0	**5**	9	10	0	0	0	0	0	0	0	0	0	0	1	**20**	0	0	**25**
Vilnius	3	0	1	1	0	0	0	0	**5**	14	6	0	0	0	0	0	0	0	0	0	0	0	**20**	0	0	**25**
TOTAL	**17**	**18**	**7**	**1**	**0**	**0**	**2**	**0**	**45**	**107**	**57**	**0**	**0**	**0**	**17**	**3**	**1**	**0**	**2**	**0**	**0**	**3**	**190**	**0**	**0**	**235**
PER CENT	7.2%	7.7%	3.0%	0.4%	0.0%	0.0%	0.9%	0.0%	19.1%	45.5%	24.3%	0.0%	0.0%	0.0%	7.2%	1.3%	0.4%	0.0%	0.9%	0.0%	0.0%	1.3%	81%	0.0%	0.0%	100%
UKRAINE																										
A.R. Krym	2	1	0	0	0	0	0	0	**3**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**6**
Cherkasskaja o.	6	19	1	1	0	0	0	0	**27**	25	1	0	0	0	1	0	0	0	0	0	0	0	**27**	0	0	**54**
Chernigovskaja o.	22	20	6	1	1	1	0	0	**51**	64	0	5	0	0	1	0	0	1	0	0	0	0	**71**	0	0	**122**
Chernovitskaia o.	1	1	0	0	0	0	0	0	**2**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**3**
Dnepropetrovskaja o.	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**
Donetskskaja o.	6	4	0	0	0	0	0	0	**10**	4	1	0	0	0	0	0	0	0	0	0	0	0	**5**	0	0	**15**
Kharkovskaja o.	6	5	4	0	0	0	0	0	**15**	12	0	0	0	0	0	0	0	0	0	0	0	0	**12**	0	0	**27**
Khersonskaja o.	1	2	2	0	0	0	0	0	**5**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**6**
Khmelnitskaja o.	12	8	3	0	1	0	0	0	**24**	43	0	0	0	0	2	0	0	0	0	0	0	0	**45**	0	0	**69**
Kievskaja o.	2	9	0	0	0	0	0	0	**11**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**15**
Kirovogradskaja o.	4	1	2	0	0	0	0	0	**7**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**9**
Luganskaja o.	6	0	5	1	0	0	0	0	**12**	3	0	0	5	0	0	0	0	0	0	0	0	0	**8**	0	0	**20**
Lvovskaja o.	0	1	0	0	0	0	0	0	**1**	5	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	1	**7**
Nikolayevskaja o.	1	4	0	0	0	0	0	0	**5**	2	0	0	1	0	0	0	0	0	0	0	0	0	**3**	0	0	**8**
Odesskaja o.	10	10	3	0	0	0	0	0	**23**	34	0	0	0	0	0	0	0	0	0	0	0	2	**36**	0	0	**59**
Poltavskaja o.	23	9	10	0	0	0	0	0	**42**	6	0	0	0	0	2	0	0	0	0	0	0	0	**8**	0	1	**51**
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.	13	15	4	0	1	0	0	0	**33**	21	0	0	0	0	0	0	0	0	0	0	0	0	**21**	0	0	**54**
Ternopolskaja o.	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**
Vinnitskaja o.	0	8	0	0	0	0	0	0	**8**	6	0	0	0	0	0	0	0	0	0	0	0	0	**6**	0	0	**14**
Volynskaja o.	1	2	0	0	0	0	0	0	**3**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**7**
Zakarpatskaja o.	0	0	1	0	0	0	0	0	**1**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**3**
Zaporozhskaja o.	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**
Zhitomirskaja o.	4	7	1	0	0	0	0	0	**12**	50	0	1	0	0	1	0	0	0	0	0	0	0	**52**	0	0	**64**
TOTAL	**121**	**127**	**42**	**3**	**3**	**1**	**0**	**0**	**297**	**298**	**2**	**6**	**6**	**0**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**322**	**0**	**2**	**621**
PER CENT	19.5%	20.5%	6.8%	0.5%	0.5%	0.2%	0.0%	0.0%	47.8%	48.0%	0.3%	1.0%	1.0%	0.0%	1.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.3%	52%	0.0%	0.3%	100%

4.2 Rabies cases per country and administrative units, 1st quarter 2003 (continued)

01.01.03 -31.03.03

Location	Domestic animals									Wildlife															bats	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			
RUSSIA																											
Astrahanskja obl.	15	8	8	1	4	0	0	0	**36**	2	0	0	0	0	0	1	0	0	0	0	0	0	**3**	0	0	**39**
Belgorodskja obl.	10	6	0	0	0	0	1	0	**17**	29	0	0	0	0	1	0	0	0	0	0	0	0	**30**	0	0	**47**
Brjanskaja obl.	11	5	0	0	0	0	0	0	**16**	32	0	0	0	0	0	0	0	0	0	0	0	0	**32**	0	0	**48**
Cuvasskaja resp.	3	0	1	0	0	0	0	0	**4**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**7**
Dagestan resp.	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**
Ivanovskaja obl.	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**
Kaliningradskaja obl.	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**
Kalmykija resp.	2	0	4	0	0	0	0	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**6**
Kaluzskaja obl.	4	1	1	1	0	0	0	0	**7**	40	1	0	1	0	1	0	0	0	0	0	0	0	**43**	0	0	**50**
Krasnodarskij kr.	6	6	0	0	0	0	1	0	**13**	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**15**
Kurskaja obl.	27	13	8	0	0	0	1	0	**49**	38	1	0	0	1	3	0	0	0	1	0	0	0	**44**	0	0	**93**
Lipeckaja obl.	14	0	5	0	1	0	0	0	**20**	64	1	0	0	0	0	0	0	0	0	0	0	0	**65**	0	0	**85**
Mordovija resp.	2	0	0	0	0	0	1	0	**3**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**6**
Moskovskaja obl.	9	1	0	0	0	0	0	0	**10**	35	1	0	0	0	0	0	0	0	0	0	0	0	**36**	0	0	**46**
Nizegorodskaja obl.	7	3	1	0	0	1	0	0	**12**	29	0	0	0	0	0	0	0	0	0	0	0	0	**29**	0	0	**41**
Orlovskaja obl.	8	11	9	0	1	1	0	0	**30**	22	2	0	0	0	0	2	0	0	0	0	0	0	**26**	0	0	**56**
Penzenskaja obl.	10	2	0	0	0	0	0	0	**12**	79	0	0	0	0	0	0	0	0	0	0	0	0	**79**	0	0	**91**
Pskovskaja obl.	2	1	0	0	0	0	0	0	**3**	5	1	0	1	0	0	0	0	0	0	0	0	0	**7**	0	0	**10**
Rjazanskaja obl.	3	3	0	0	0	0	0	0	**6**	9	0	0	0	0	1	0	0	0	0	0	0	0	**10**	0	0	**16**
Rostovskaja obl.	9	6	11	0	1	0	0	0	**27**	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0	0	**36**
Saratovskaja obl.	20	10	28	0	1	0	0	0	**59**	54	0	0	0	0	0	0	0	0	0	0	0	0	**54**	0	0	**113**
Severn. Osetija-Alanija resp.	9	2	4	0	0	11	0	0	**26**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	**26**
Smolenskaja obl.	7	0	0	0	0	0	0	0	**7**	32	4	0	0	0	0	0	1	0	0	0	0	0	**37**	0	0	**44**
Stavropol'skij kr.	2	0	2	0	0	1	1	0	**6**	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**7**
Tambovskaja obl.	13	0	0	0	0	0	0	0	**13**	27	0	0	0	0	0	0	0	0	0	0	0	0	**27**	0	0	**40**
Tul'skaja obl.	12	3	1	0	1	0	0	0	**17**	19	0	0	0	0	0	0	0	0	0	0	0	0	**19**	0	0	**36**
Tverskaja obl.	0	0	0	0	0	0	0	0	**0**	9	1	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**10**
Vladimirskja obl.	1	1	0	0	0	0	0	0	**2**	3	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**5**
Volgogradskaja obl.	7	1	11	1	0	0	0	0	**20**	4	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**24**
Voronezskaja obl.	39	20	23	0	3	0	0	0	**85**	37	0	0	2	0	1	0	0	0	0	0	0	0	**40**	0	0	**125**
TOTAL	**253**	**103**	**118**	**3**	**12**	**14**	**5**	**0**	**508**	**593**	**12**	**0**	**4**	**1**	**7**	**3**	**1**	**0**	**1**	**0**	**0**	**0**	**622**	**0**	**0**	**1130**
PER CENT	22.4%	9.1%	10.4%	0.3%	1.1%	1.2%	0.4%	0.0%	45.0%	52.5%	1.1%	0.0%	0.4%	0.1%	0.6%	0.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	55%	0.0%	0.0%	100%

4.3 TREND TABLES

4.3.1 Comparison of the reporting quarter (I /2003) with the previous quarter (IV /2002)

NAME	Total			Wildlife			Domestic animals			Bats			Human		
	I 2003 (no.)	IV 2002 (no.)	Difference	I 2003 (no.)	IV 2002 (no.)	Difference	I 2003 (no.)	IV 2002 (no.)	Difference	I 2003 (no.)	IV 2002 (no.)	Difference	I 2003 (no.)	IV 2002 (no.)	Difference
ALBANIA	**2**	**1**	**1**	2	1	1	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	**380**	**297**	**83**	290	226	64	90	71	19	0	0	0	0	0	0
BELGIUM	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
BOSNIA /HERCEGOVINA	**31**	**14**	**17**	26	12	14	5	2	3	0	0	0	0	0	0
BULGARIA	**6**	**3**	**3**	5	3	2	1	0	1	0	0	0	0	0	0
CROATIA	**254**	**194**	**60**	245	185	60	9	9	0	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	**238**	**169**	**69**	213	146	67	25	23	2	0	0	0	0	0	0
FED.REP. OF YUGOSL	**77**	**86**	**-9**	64	73	-9	13	13	0	0	0	0	0	0	0
FINLAND	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
FRANCE	**1**	**0**	**1**	0	0	0	0	0	0	1	0	1	0	0	0
GERMANY	**8**	**17**	**-9**	8	16	-8	0	0	0	0	1	-1	0	0	0
GREECE	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
HUNGARY	**64**	**55**	**9**	47	46	1	17	9	8	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	**221**	**177**	**44**	198	141	57	23	36	-13	0	0	0	0	0	0
LITHUANIA	**235**	**346**	**-111**	190	224	-34	45	122	-77	0	0	0	0	0	0
LUXEMBOURG	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
MACEDONIA	no data														
MOLDOVA	**9**	**11**	**-2**	5	3	2	4	8	-4	0	0	0	0	0	0
NETHERLANDS	**1**	**0**	**1**	0	0	0	0	0	0	1	0	1	0	0	0
NORWAY	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
POLAND	**167**	**271**	**-104**	149	227	-78	18	43	-25	0	1	-1	0	0	0
PORTUGAL	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
ROMANIA	**13**	**21**	**-8**	9	15	-6	4	6	-2	0	0	0	0	0	0
RUSSIAN FEDERATION	**1130**	**1088**	**42**	622	502	120	508	583	-75	0	0	0	0	3	-3
SLOVAK REPUBLIC	**130**	**43**	**87**	110	38	72	20	5	15	0	0	0	0	0	0
SLOVENIA	**2**	**9**	**-7**	2	9	-7	0	0	0	0	0	0	0	0	0
SPAIN	**0**	**3**	**-3**	0	0	0	0	3	-3	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	**40**	**35**	**5**	6	4	2	34	31	3	0	0	0	0	0	0
UKRAINE	**621**	**661**	**-40**	322	322	0	297	338	-41	0	0	0	2	1	1
UNITED KINGDOM	**0**	**1**	**-1**	0	0	0	0	0	0	0	0	0	0	1	-1
TOTAL	**3630**	**3502**	**128**	**2513**	**2193**	**320**	**1113**	**1302**	**-189**	**2**	**2**	**0**	**2**	**5**	**-3**

Wildlife: excluding bats
I 2003 (no.)/ IV 2002 (no.): number of cases
Difference: no. of cases in I /2003 minus cases in IV /2002

4.3.2 Comparison of the reporting quarter (I /2003) with the same quarter of the previous year (I/ 2002)

NAME	Total			Wildlife			Domestic animals			Bats			Human		
	I 2003 (no.)	I 2002 (no.)	Difference	I 2003 (no.)	I 2002 (no.)	Difference	I 2003 (no.)	I 2002 (no.)	Difference	I 2003 (no.)	I 2002 (no.)	Difference	I 2003 (no.)	I 2002 (no.)	Difference
ALBANIA	**2**	**0**	**2**	2	0	2	0	0	0	0	0	0	0	0	0
AUSTRIA	**0**	**20**	**-20**	0	18	-18	0	2	-2	0	0	0	0	0	0
BELARUS	**380**	**138**	**242**	290	111	179	90	27	63	0	0	0	0	0	0
BELGIUM	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
BOSNIA /HERCEGOVINA	**31**	**23**	**8**	26	21	5	5	2	3	0	0	0	0	0	0
BULGARIA	**6**	**5**	**1**	5	5	0	1	0	1	0	0	0	0	0	0
CROATIA	**254**	**134**	**120**	245	129	116	9	5	4	0	0	0	0	0	0
CYPRUS	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
CZECH REPUBLIC	**0**	**1**	**-1**	0	1	-1	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	**238**	**71**	**167**	213	64	149	25	7	18	0	0	0	0	0	0
FED.REP. OF YUGOSL	**77**	**60**	**17**	64	52	12	13	8	5	0	0	0	0	0	0
FINLAND	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
FRANCE	**1**	**0**	**1**	0	0	0	0	0	0	1	0	1	0	0	0
GERMANY	**8**	**16**	**-8**	8	13	-5	0	2	-2	0	1	-1	0	0	0
GREECE	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
HUNGARY	**64**	**40**	**24**	47	30	17	17	10	7	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	**221**	**133**	**88**	198	110	88	23	23	0	0	0	0	0	0	0
LITHUANIA	**235**	**188**	**47**	190	154	36	45	34	11	0	0	0	0	0	0
LUXEMBOURG	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
MACEDONIA	no data														
MOLDOVA	**9**	**10**	**-1**	5	6	-1	4	4	0	0	0	0	0	0	0
NETHERLANDS	**1**	**0**	**1**	0	0	0	0	0	0	1	0	1	0	0	0
NORWAY	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
POLAND	**167**	**470**	**-303**	149	426	-277	18	43	-25	0	1	-1	0	0	0
PORTUGAL	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
ROMANIA	**13**	**51**	**-38**	9	29	-20	4	22	-18	0	0	0	0	0	0
RUSSIAN FEDERATION	**1130**	**742**	**388**	622	251	371	508	491	17	0	0	0	0	0	0
SLOVAK REPUBLIC	**130**	**36**	**94**	110	30	80	20	6	14	0	0	0	0	0	0
SLOVENIA	**2**	**3**	**-1**	2	3	-1	0	0	0	0	0	0	0	0	0
SPAIN	**0**	**2**	**-2**	0	0	0	0	2	-2	0	0	0	0	0	0
SWEDEN	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
SWITZERLAND + LIEC.	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY	**40**	**66**	**-26**	6	9	-3	34	57	-23	0	0	0	0	0	0
UKRAINE	**621**	**340**	**281**	322	145	177	297	195	102	0	0	0	2	0	2
UNITED KINGDOM	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**3630**	**2549**	**1081**	**2513**	**1607**	**906**	**1113**	**940**	**173**	**2**	**2**	**0**	**2**	**0**	**2**

Wildlife: excluding bats
I 2003 (no.)/ I 2002 (no.): number of cases
Difference: no. of cases in I /2003 minus cases in I /2002

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RABIES CASES EUROPE
1 st QUARTER 2003
3630 CASES REPORTED

2 BAT RABIES CASES INCLUDED
2 HUMAN RABIES CASES INCLUDED

NOR
Svalbard (0)
Greenland
(DNK)
ISL
(rabies free)

NOR
(rabies free)
SWE
(rabies free)
FIN
(rabies free)
RUS
(1130)
(238)
EST
(221)
LVA
(235)
LTU
DNK
(0)
Baltic Sea
RUS
BLR
(399)
KAZ
IRE
(rabies free)
UNK
(0)
(1)
NED
DEU
(8)
POL
(167)
(619)
(2)
UKR
BEL
(rabies free)
LUX
(rabies free)
CZH
(0)
SVK
(130)
MDA
(9)
Sea of Azov
Caspian Sea
FRA
(1)
AUT
(0)
HUN
(64)
CHE
(0)
ROU
(13)
Black Sea
GEO
AZE
ARM
SVN
(2)
HRV
ITA
(rabies free)
YUG
(77)
(no detailed information)
(254)
BIH
(31)
BUL
(6)
TUR
(40)
IRN
PRT
(rabies free)
ESP
(0)
MKD
(no data)
(2)
ALB
GRC
(rabies free)
IRQ
SYR
CYP
(rabies free)
LBN
Mediterranean Sea
MAR
DZA
TUN

(rabies free) = NO INDIGENOUS CASE REPORTED FOR AT LEAST TWO YEARS

150 km

Administrative boundaries
based on MACON
RegioGraph 6.0