RABIES BULLETIN EUROPE

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Contents

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1. Introduction

This BULLETIN describes the reported rabies cases in Europe for the **Third Quarter 1993**, subsequently referred to as ***"This Quarter"***.

In SECTION 2 a summary of the rabies situation in general is given.

SECTION 3 (3.1-3.36) reflects the situation for individual countries.

In the Miscellaneous SECTION under 4.1 an analysis is presented on the epizootiological and epidemiological situation in Poland in 1992. Under 4.2 the circumstances and treatment of a human rabies case possibly derived from the bite of a rabid bat in the U.S.A. is described. A short comment on a graph showing the development of animal rabies cases from 1955 to 1992 in the United States of America is made under 4.3. Subsection 4.4 refers to a computer software package to be used in Veterinary Public Health. Finally, a comment is made in regard to oral vaccination of foxes against rabies reflecting on more recent set-backs in this field under 4.5.

The rabies case data are tabulated for the **Third Quarter 1993** in SECTION 5. The arrangement of the countries follows practical considerations not alphabetical ones.

SECTION 6 lists the official contributors to the BULLETIN.

The geographical distribution of rabies cases in Europe for the **Third Quarter 1993** is shown on maps of Russia, Turkey and Europe in the ANNEX.

2. Summary of Rabies in Europe

During ***"This Quarter"***, 2123 rabies cases were reported in Europe. Of these were 1611 in wild animals (75.9% of total), 511 in domestic animals and there was 1 human case.

Of the cases in wild animals, 1405 were foxes, 78 raccoon dogs, 25 badgers, 29 stone martens, 28 pine martens, 1 wolf, 2 polecats, 2 ferrets, 23 roe deer, 1 red deer, 1 fallow deer, 1 wild boar, 8 bats, 3 squirrels, 1 black rat, 1 house mouse and 2 other wild animals. Of the 511 cases in domestic animals, 141 were dogs, 131 cats, 198 cattle, 24 sheep, 4 goats, 7 horses, 2 donkeys, 3 pigs and 1 other domesticated carnivore. These data are summarized in TABLE 1 and 3.

TABLE 2 adds up the quarters 1 to 3 of 1993. Comparing the total to the same time span of 1992 (7825 cases) there has been a reduction of 1202 cases in 1993.

There has been an increase of rabies cases in nearly all of the countries with fox-mediated rabies compared to the previous quarter (1784 cases). This is expected and due to the dispersal of the young foxes in the spring increasing the contact rate in the population.

Turkey, the only country with dog-mediated rabies, recorded 5 cases less compared to the previous quarter.

There were 8 bat rabies cases reported, from Germany (2), the Netherlands (5) and Switzerland (1). Because of the distinct features of bat rabies, the cases are marked in the map in the ANNEX in a different colour.

There was one human case reported from Latvia.

Rabies-free countries in Europe participating in the surveillance were: Finland, Greece, Iceland, Ireland, the mainland of Norway, Portugal, the mainland and islands of Spain, Sweden, and the United

Kingdom of Britain and Northern Ireland.

There were no cases reported during *"This Quarter"* from Belgium, Denmark, Luxembourg, Svalbard of Norway and the Spanish territory of North Africa, but the last indigenously acquired case (in terrestrial animals or bats) was less than two years ago.

The status of four countries with no data supplied (but is expected) can not be judged.

3. Rabies in Individual Countries

3.1 Albania ALB

No data.

3.2 Austria AUT

by Helmut Schnabl

Of 8904 samples examined for rabies during *"This Quarter"*, 199 cases (2.2%) were diagnosed rabid. There has been an increase of cases by 99% compared to the second quarter 1993 (100).

Of the 199 cases, 178 were in wild animals (159 foxes, 6 badgers, 6 stone martens, 7 roe deer) and 21 cases were in domestic animals (3 cats, 11 cattle, 7 sheep).

The distribution of rabies cases by Bundesländer (federal provinces) and Bezirke (districts) was as follows:

Burgenland: 7 cases in the Bezirke Jennersdorf and Neusiedl/See.

Niederösterreich: 3 cases in the Bezirke Gmünd, Mödling and Neukirchen.

Salzburg: 14 cases in Zell am See.

Steiermark: 1 case in Graz/Umgebung.

Tirol: 107 cases (53.8% of total) in the Bezirke Imst, Innsbruck/Land, Kufstein and Schwaz.

Vorarlberg: 67 cases (33.7% of total) in the Bezirke Bregenz and Dornbirn.

The Bundesländer Oberösterreich, Kärnten und Wien recorded no rabies.

3.3 Belgium BEL

by L. Hallet

During *"This Quarter"*, no case of rabies was reported in Belgium.

An autumn campaign to vaccinate foxes was carried out on 20 September 1993. It covered an area of 5500 km². 85,200 vaccine baits were distributed from a helicopter.

3.4 Bulgaria BUL

No data.

3.5 Belarus BYE

by S.N. Shpilevsky, P. Rytik and J. Bulanov

A total of 19 cases was reported in Belarus during *"This Quarter"*. Of the total 6 were in domestic animals (2 dogs, 4 cattle) and 13 in foxes.

The cases were scattered throughout the 6 regions of the country.

First quarter 1993

There were 36 rabies cases reported during the first quarter 1993, 13 in domestic animals (11 dogs, 2 cats), 22 in wild animals (20 foxes, 1 wolf, 1 raccoon dog) and 1 human case.

Mostly affected by the disease was the Mogilev Region with 16 cases, including the human case. The Vitebsk Region recorded 9 cases, all other regions less than 5 cases.

Editors note: In issue 1/93 of the RABIES BULLETIN EUROPE 26 cases were reported for Belarus without the animals specified. Please replace text and data of issue 1/93 as described above.

Second quarter 1993

During the second quarter 1993, 36 rabies cases in animals were reported in Belarus. Of the animals involved 20 were domestic animals (11 dogs, 5 cats, 4 cattle) and 16 wild animals (14 foxes and 2 wolves).

Most of the cases (22) occurred in the Vitebsk Region, followed by the Mogilev Region (9), the Gomel Region (3) and the Grodno Region (2).

3.6 Croatia CRO

by Mate Brstilo

During *"This Quarter"*, 46 rabies cases were registered in Croatia. Of these, 40 were in foxes (87% of total), 4 in cats and 2 in dogs.

3.7 Czech Republic CZH

by Oldrich Matouch

During *"This Quarter"*, 3513 animals were submitted for examination. The total number of rabies cases diagnosed in the Czech Republic was 107. 103 cases were reported in wild animals (96.3%) and 4 in domestic animals (3.7%).

Of the total number of wild animals, the disease was confirmed in 87 foxes (84.3%), 15 martens (14.0%) and 1 squirrel. It was the first case of rabies diagnosed in a squirrel in the Czech Republic. The isolated strain was determined as street virus using monoclonal antibodies characterization.

Of the domestic animals rabies was confirmed in 1 dog and 3 cats.

There were 40 cases more during *"This Quarter"* compared to the same period of 1992. Cases were most frequent in the region of East Bohemia (39), North Bohemia (29) and North Moravia (15).

3.8 Denmark DEN

by Eric Stougaard

No case of rabies has been reported in Denmark during *"This Quarter"*.

3.9 Germany, Federal Republic DEU

by Winfried W. Müller and Thomas Müller

A total of 159 rabies cases was reported during *"This Quarter"*, 70 cases more than during the previous quarter, but 151 less than during the third quarter 1992.

Foci with a concentration of cases were located in the border area of the federal states Nordrhein-Westfalen/ Rheinland-Pfalz and in the Regierungsbezirk (department) Freiburg in the south-west corner of the country. All other infected areas recorded more scattered cases.

Two border areas in Bavaria having been free of rabies for several years were reinfected from Austria.

Seven out of 16 federal states recorded no rabies case - the city states of Bremen, Hamburg and Berlin, Schleswig-Holstein, Brandenburg, Thüringen and Sachsen.

There were 2 bat rabies cases, 2 *Eptesicus serotinus*, one in Rostock at the Baltic Sea and one near Hannover.

3.10 Estonia EST

by Matti Nautras

During *"This Quarter"*, 40 rabies cases were registered in Estonia, 8 cases more than during the previous quarter. 32 cases were diagnosed in wild animals (16 foxes, 13 raccoon dogs, 2 badgers, 1 ferret) and 8 in domestic animals (1 dog, 4 cats, 1 pig, 2 cattle).

The district of Tartumaa recorded 14 cases, all other districts less than 7 cases.

3.11 Finland FIN

by Bengt Westerling

The country remained rabies-free.

Surveillance:

The following 31 animals were examined for rabies but reveiled negative results: 10 foxes, 8 raccoon dogs, 4 dogs, 4 cats, 1 wolf, 1 wild mink, 1 bovine, 2 bats.

3.12 France FRA

by Michel F.A. Aubert

54 rabies cases were registered during *"This Quarter"*, 12 cases less than in the previous quarter. Almost all the cases were located in areas where the oral vaccination was initiated more recently.

The foci along the English channel are extinct since December 1992 and, no cases occurred anymore to the west of the city Reims.

3.13 Greece GRE

by A. Katsaounis

The country remained rabies-free.

3.14 Hungary HUN

by Balint Kerekes

During *"This Quarter"*, 220 animal rabies cases were registered, 50 cases more than during the previous quarter and 30 cases more than during the third quarter 1992.

75.5% of the total were in wild animals, (164 foxes, 1 stone marten, 1 pine marten). 24.5% were in domestic animals (11 dogs, 31 cats, 11 cattle, 1 goat).

All provinces (komitate) were affected by the disease. In the extreme west of the country, where oral vaccination was started in 1992, only a few isolated cases were noticed.

3.15 Iceland ICE

The country remained rabies-free.

3.16 Ireland IRE

The country remained rabies-free.

3.17 Italy ITA

by Santino Prosperi

During *"This Quarter"*, 19 cases of animal rabies were diagnosed. In the previously infected community of Gorizia near the Slovenian border, only one fox was registered rabid. All other cases were reported in the province of Bolzano affecting 4 infected communities, 2 for the first time - Val de Vizze and Racines. Of the 18 cases, 16 were foxes, 1 badger and 1 pine marten.

3.18 Lithuania LTU

by Algis Dranseika

During *"This Quarter"*, 26 rabies cases in animals were registered in 16 districts. Of these were 12 cattle, 5 dogs, 5 cats and 4 foxes.

Cases were more concentrated in the northern and the central part of the country.

More than 38,000 dogs were vaccinated against rabies during *"This Quarter"*.

3.19 Luxembourg LUX

by Joseph Kremer

During *"This Quarter"* no case of rabies was registered. The last fox rabies case was diagnosed on 16 October 1991.

3.20 Latvia LVA

by Z. Andersons, J. Rimeicans and A. Dedzins

During *"This Quarter"*, 62 rabies in animals and 1 human case were registered in Latvia, in 18 districts. There has been twice as many cases reported in animals as compared to the previous quarter (31) and also an increase compared to the third quarter 1992 (32). 8 districts recorded no rabies.

Of 41 rabid wild animals, 23 were foxes, 13 raccoon dogs, 1 wolf, 1 badger and 3 pine martens. Of 21 rabid domestic animals, there were 7 dogs, 10 cats, 3 cattle and 1 goat.

The most affected districts of the country were Ventspils with 15 cases, Saldus with 11 cases, Liepája with 7 cases, Madona with 6 cases and Ogre with 4 cases. All other districts reported 1 to 3 cases.

The human case occurred in the district Saldus.

3.21 Moldova MLD

No data.

3.22 Netherlands NET

by J.H.M. Nieuwenhuijs

During *"This Quarter"*, 221 animals were investigated for rabies - 107 adult

foxes, 7 young foxes, 1 dog, 4 cats, 1 deer, 19 badgers, 3 squirrels, 1 hedgehog, 68 bats. Of the 68 bats, 7 were of the *Rousettus aegyptiacus* species in the Blijdorp Zoo.

5 bats were diagnosed rabid. One was classified an *Eptesicus serotinus*, the other four still have to be determined.

3.23 Norway NOR

by Gudbrand Bakken

The mainland of Norway remained rabies-free.

No case of rabies has been reported in Svalbard during ***"This Quarter"***.

3.24 Poland POL

by Jozef Maleszewski

A total of 693 rabies cases in animals was reported in Poland during ***"This Quarter"***, 121 cases more than during the previous quarter (572) and 83 less than during the third quarter 1992 (776).

Of the total, 548 were in wild animals (79.1%) - 454 foxes, 49 raccoon dogs, 23 pine martens, 2 badgers, 2 polecats, 1 ferret, 13 roe deer, 1 red deer, 1 wild boar, 2 squirrels and 145 in domestic animals - 34 dogs, 32 cats, 71 cattle, 5 sheep, 1 horse, 1 pig, 1 other domesticated carnivore.

The case distribution was more concentrated in the northern and western part of the country.

3.25 Portugal POR

The country remained rabies-free.

3.26 Romania ROM

by Gheorghe Stratulat

During ***"This Quarter"***, 17 rabies cases were reported in Romania, 9 cases less than during the previous quarter. There were 9 cases in domestic animals (4 dogs, 2 cattle, 2 horses, 1 sheep) and 8 in foxes. The cases were scattered throughout the country.

3.27 Russia RUS (European part only)

by V.A.Vedernikov,B.L.Cherkasskiy, S.A.Chernichenko and V.A.Kibasov

During ***"This Quarter"***, 91 rabies cases in animals were reported from the European part of the Russian Federation. Of the total number of cases, 74 were in domestic animals - 15 dogs, 7 cats, 46 cattle, 4 horses, 1 sheep, 1 pig, and 17 were in wild animals - 11 foxes, 3 raccoon dogs, 2 badgers, 1 rat.

The cases were distributed more in the central and southern parts of the European part of Russia. Most affected were the Republic of Bashkortostan with 20 cases and the Pskov Region with 13 cases.

3.28 Slovak Republic SVK

by Bohuslav Lovas

During ***"This Quarter"***, the total of rabies cases confirmed in the Slovak Republic amounted to 109. Of these 91 cases were in wild animals and 18 in domestic animals. Of the wild animals the disease was registered in 87 foxes, 1 badger, 1 red deer and 2 others; of the domestic animals in 4 dogs, 12 cats, 1 bovine and 1 goat.

3.29 Spain SPA

by T. Maté Maté

During ***"This Quarter"***, the mainland and islands of Spain remained rabies-free. There were no cases reported from the Spanish territory of North Africa.

3.30 Slovenia SVN

by Armin Tomašič

During ***"This Quarter"***, 104 rabies cases were noticed in Slovenia, 16 more than during the previous quarter. 102 cases occurred in wild animals (98.1% of total) and only 2 cases in cats.

There was a concentration of cases in the western half of the country.

3.31 Sweden SWE

The country remained rabies-free.

3.32 Switzerland SWI

by Reto Zanoni

During ***"This Quarter"***, the Swiss Rabies Centre examined a total of 885 animals, of which 6.3% (56) were positive for rabies. In the previous quarter, 5.2% (28 out of 537) and in the third quarter of 1992, 3.3% (20 out of 602) had been recorded positive, respectively. The cases of rabies observed in this quarter involved 47 red foxes, 3 badgers, 2 stone martens, 1 bat (*Myotis daubentoni*), 1 cat and 2 cattle. As in the previous quarters, the majority of the cases recorded came from the larger vicinity of Basel, in the north of Switzerland. Furthermore, a new focus evolved in the canton of Jura in the south-west of Basel.

29 bats (11 *Pipistrellus pipistrellus,* 1 *Pipistrellus nathusii,* 4 *Myotis daubentoni,* 3 *Myotis myotis,* 4 *Plecotus auritus,* 2 *Plecotus sp.*, 1 *Eptesicus serotinus,* 1 *Vespertilio murinus* and 1 unknown species) were examined during the reporting period. One of them, a *Myotis daubentoni* was found to be positive for rabies. This is the second case of bat rabies in Switzerland in a *Myotis daubentoni.* Using MABs, also this bat virus was identified as a European Bat Lyssavirus type 2 (Dr. A. King, Weybridge, personal communication).

Three persons were bitten by proven rabid animals, one by a bat, one by a cat and one by a stone marten. The number of people treated for non-bite exposures is not recorded.

3.33 Turkey TUR

by A. Nizamettin Güvener

During ***"This Quarter"***, 79 rabies cases in animals were reported in Turkey, 5 cases less than during the previous quarter. Of the total, 55 were dogs, 4 cats, 17 cattle, 2 donkeys and 1 house mouse.

Concentration of rabies cases was found in the provinces Istanbul, Kocaeli and Bolu in the northwest of the country with 11, 8 and 11 cases respectively. All other provinces had less cases to report and their distribution was more scattered.

3.34 Ukraine UKR

No data.

3.35 United Kingdom UNK

by P.J. Thomas

The country remained rabies-free.

3.36 Yugoslavia YUG

by Dušan Jakovljević

A total of 17 rabies cases were reported during ***"This Quarter"***, 16 in Vojvodina and one case in Serbia. The latter case was in a fox and occurred close to the Bulgarian state border.

Of the 16 cases in Vojvodina 10 were in domestic animals (9 cattle, 1 sheep) and 7 in foxes.

4. MISCELLANEOUS ARTICLES

4.1 Animal Sources of Rabies Infection and their Effect on the Epidemiological Rabies Situation in Poland

by Danuta Seroka
National Institute of Hygiene, Warsaw, Poland

A. The epizootic situation

In Poland the pattern of fox-mediated rabies exists. Data supporting that can be seen in FIGURE 1 and TABLE 1.

Foxes maintain the chain of infection and infect other wild animals and domestic animals. Farm animals and especially dogs and cats bring the infection into the domestic environment.

Dogs and cats which are not properly cared for, because owners don't have them vaccinated, and stray animals are the great potential to infect humans.

A different rabies virus type occurs in European bats. In Poland only isolated bat rabies cases occurred (3 cases from 1972 to 1992).

In 1992, 2 rabies cases in squirrels were noticed and there is the interesting question if there is an epizootic link to bat rabies. Unfortunately, the diagnosis of rabies in the squirrels was only carried out by direct fluorescent antibody test and the virus was not isolated for monoclonal antibody characterization.

One animal which has invaded Poland from the east over the last years has been increasingly involved in rabies - the raccoon dog. From 1961 to 1966 the first three cases were reported. In 1992 the animal accounted for the second largest number of cases after the fox.

At the WHO Collaborating Centre for Rabies Surveillance and Research in Tübingen, several Polish rabies strains were characterized with monoclonal antibodies. One raccoon dog strain isolated at the Olsztyn veterinary laboratory reveiled an antigenic relation to the polar rabies virus and an other one to an antigenic variant of a fox virus occurring in eastern Europe (Editor: see as well RABIES BULLETIN EUROPE 3/91 pp 12-13).

B. The epidemiological situation

From 1986 up to now, no rabies in man has been reported in the country. Preventional work though is carried out in case of known or suspected exposure to rabid animals.

TABLE 1 shows that of the total number of 3097 infected animals registered in 1992 only 796 (26 per cent) incurred the need for vaccination of people. Only every ninth rabid fox had contact with man. The contact rate to dogs (87%), cats (76%) or farm animals (79%) was naturally higher.

TABLE 2 shows the type of exposure which led to the vaccination of people (as mentioned in TABLE 1). No contact or indirect contact and licks (together 78% of total) were the most common reactions.

Infected dogs and cats were responsible for most of the exposures (in 813 cases). It points out how important preventional vaccinations of these animals against rabies are and how they can influence the epidemiological situation. They can be a protective barrier between wild animals and man.

Considering the epizootic situation in Poland there are many animals which give reason for the laboratory diagnosis of rabies. Nevertheless, it poses obviously a big burden

on vaccination centres and the medical service, and on other institutions concerned, like veterinary laboratories and animal clinics to always forwarding the material needed for the appropriate test. TABLE 3 shows that people who have been vaccinated and where rabies was not excluded outnumber those who were vaccinated because their exposure was proven. TABLE 4 gives some reasons for human vaccination when rabies was suspected. TABLE 5 reveals that dogs and cats outnumber other animals suspected to be infected, and that they are responsible for most of the bites.

In Poland the diagnosis of rabies in animals does not routinely include virus isolation on tissue culture. Here a prompt diagnosis could be achieved and it would avoid a great number of unnecessary vaccinations in man.

C. Concluding remarks

1. The red fox is in Poland the animal responsible for maintaining the rabies epizootic in terrestrial animals. In 1992 the raccoon dog was the animal with the second largest recorded number of cases. There are rare cases of bat rabies.

Thus, preventional measure in animals should be:

mass oral vaccination of foxes (and other wild animals) in combination with parenteral mass vaccination of dogs (and cats and farm animals).

2. Since 1986 no case of rabies in man has been reported in Poland. The following measure to protect people are practiced:

- vaccination of dogs to have a barrier against wildlife rabies
- publicity on the prevention of the disease
- intensive surveillance
- laboratory diagnostic to confirm or exclude rabies in animals
- pre- and post-exposure vaccination of people

FIGURE 1
Fox, dog and raccoon dog rabies in Poland in 1992

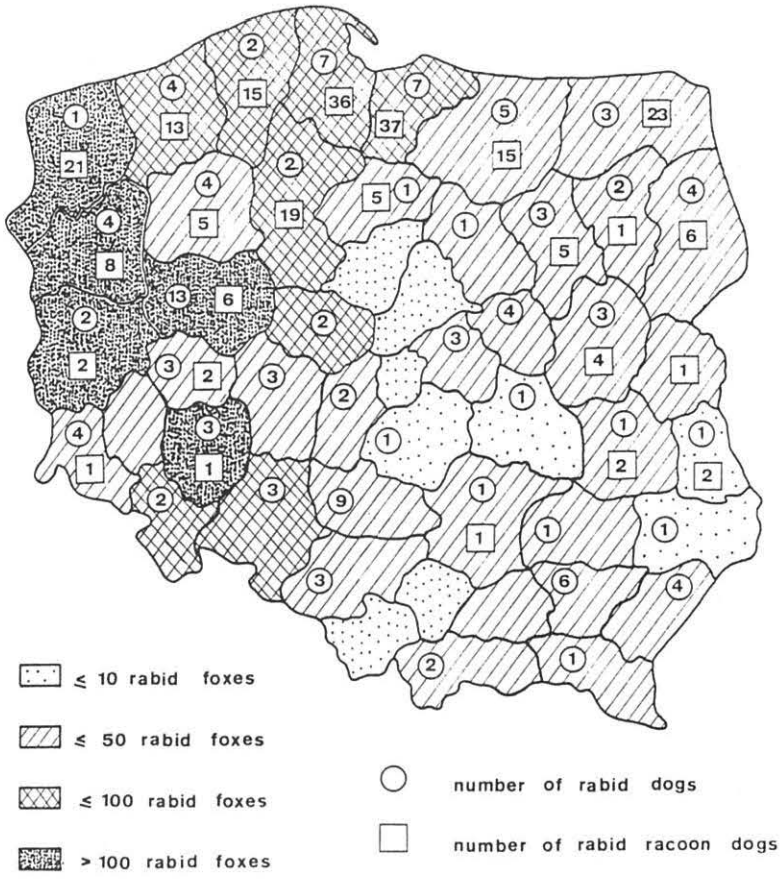


TABLE 1
Rabies cases (laboratory confirmed) in Poland in 1992 and human exposure

Animal species	Rabies cases	% of total cases	Human exposure	% of rabies cases	Number of vaccinated people	% of total number vaccinated
Dog	129	4	112	87	400	19
Cat	193	6	147	76	413	20
Farm animals	219	7	174	79	549	26
Fox	2090	67.5	236	11	414	20
Badger	25	1	11	44	14	1
Raccoon dog	231	7.5	35	15	62	3
Marten, Polecat, Weasel	83	3	36	43	63	3
Wolf	1	-	1	-	3	-
Squirrel	2	-	1	-	20	1
Deer	112	4	38	34	119	6
Hedgehog	2	-	1	-	1	-
Wild boar	10	-	4	-	19	1
Total	3097		796	26	2077	

TABLE 2
Animal rabies sources and type of human exposure in Poland in 1992

Type of human exposure	Number of humans exposed to rabid animals				Total and (%) of vaccinated people
	Dogs and cats (%)	Farm animals (%)	Wild animals * (%)	Wild animals ** (%)	
No contact, indirect contact	121 (15)	88 (16)	230 (40)	46 (33)	485 (23)
Licks	379 (47)	449 (82)	237 (41)	82 (59)	1147 (55)
Scratches	61 (7)	2	21 (4)	2	86 (4)
Superficial bites	210 (26)	9 (2)	60 (10)	8 (6)	287 (14)
Deep bites	41 (5)	1	26 (5)	1	69 (3)
No data	1		2		3
Total	813	549	576	139	2077

* **Carnivora**
** **Other wild animals**

TABLE 3
Rabies suspected animals* and human antirabies vaccination in Poland in 1992

Animal	Number of humans exposed to				Total	%
	C-animals	%	D-animals	%		
Dog	1955	63	306	81	2261	65
Cat	454	15	51	14	505	15
Farm animal	33	1	1		34	1
Fox	118	4	1		119	3
Badger	7				7	
Raccoon dog	9				9	
Marten,Polecat,Weasel	67	2	2		69	2
Wolf	1				1	
Bat	3				3	
Rat,Mouse	204	7	9	3	213	6
Squirrel	45				45	1
Hamster	4		1		5	
Deer	92	3	3		95	3
Hedgehog	9				9	
Mole	15				15	
Hare	14				14	
Wild boar	18				18	
Other	15		2		17	
No data	39				39	1
Total	3102		376		3478	

*** generally - one rabies suspected animal affects one person**
C - rabies not excluded
D - rabies intravitam excluded

TABLE 4
Suspected rabies - reasons for human vaccination

Number of humans exposed* to		Reasons for human vaccination		
Domestic animals	Wild animals	Animal escaped	Animal killed not diagnosed	Laboratory results not taken into consideration**
2442	621	2453	471	21

*** In 39 cases - animal not identified**
**** In 157 cases rabies laboratory excluded - human vaccination discontinued**

TABLE 5
Rabies suspected animals and human antirabies vaccination in Poland in 1992

Type of exposure	Number of humans exposed to rabies suspected					
	Dogs and cats (%)	Farm animals (%)	Wild animals * (%)	Wild animals ** (%)	Not identified (%)	Total (%)
No contact, indirect contact	73 (3)	5 (15)	35 (7)	46 (30)	2 (5)	161 (5)
Licks	70 (3)	19 (56)	79 (16)	49 (32)	3 (8)	220 (6)
Scratches	50 (2)		13 (3)	6 (4)		69 (2)
Superficial bites	1889 (68)	6 (18)	267 (55)	31 (21)	24 (62)	2227 (64)
Deep bites	662 (24)	4 (11)	90 (19)	21 (13)	10 (25)	787 (23)
No data	12		2			14
Total	2766	34	486	153	39	3478

*** carnivora**
**** other wild animals**

4.2 Human Rabies - New York, 1993

In August 1993, a fatal case of human rabies in an 11-year-old girl was reported to the New York State Department of Health; this was the first indigenously acquired fatal case diagnosed in New York in 39 years. This report summarizes the investigation of this case.

On July 5, the girl complained of pain in the knuckles on her left hand. During July 6-7, she had increasing pain that extended up to the left shoulder. On July 8, a pediatrician diagnosed musculoskeletal pain and bilateral ear effusions; a throat culture was obtained and amoxacillin was prescribed.

On July 9, the patient developed fever, severe muscle spasms of the left arm, difficulty walking, and hallucinations. On evaluation in an emergency department on July 10, she had fever (101.1 F [38.6 C]), otitis media in her left ear, nonexudative pharyngitis, and a maculopapular rash on the chest; there were no focal neurologic or meningeal signs. The throat culture obtained July 8 was positive for presumed streptococcus group A, and recurrent streptococcal pharyngitis and otitis media were diagnosed. She was treated with intravenous caftriaxone, normal saline, and oral antipyretics and was discharged with a prescription for cefaclor.

She subsequently would not drink, withdrew when offered a drink, and had difficulty swallowing oral secretions. On evaluation in a hospital emergency department on July 11, she had a temperature of 105.3 F (40.7 C), mild meningismus but no focal neurologic findings; a white blood cell (WBC) count was elevated at 13,300. A lumbar puncture revealed 23 WBCs per cubic millimeter (mm^3) (d100% lymphocytes) and 1200 blood cells per mm^3. Viral meningoencephalitis or meningococcal infection was diagnosed. She was treated with ceftriaxone and examethasone intravenously and transported by helicopter ambulance to a tertiary-care medical center.

On admission to the pediatric intensive-care unit, she was alert, oriented, and cooperative but agitated; her pupils were unequal but reactive. Acyclovir was added to her treatment regimen. The patient developed respiratory distress, hypertension, and tachycardia and was placed on mechanical ventilation; cardiac arrhythmias subsequently oc-

curred, and she suffered nonreversible cardiac arrest.

An autopsy was performed on July 12; although unfixed brain tissue was not obtained for viral or bacterial diagnosis, cerebral edema was noted. During August 2-3, examination of routine histopathologic slides of brain tissue revealed encephalitis with severe involvement of the midbrain, pons and medulla, and possible Negri bodies. Culture of cerebrospinal fluid (CSF) obtained July 11 for rabies virus and tests of serum and CSF for rabies antibody were negative at the New York State Department of Health. However, specimens tested by the rabies fluorescent antibody technique (FA) indicated fluorescent inclusions in the brain stem, midbrain, and Purkinje cells of the cerebellum. Rabies diagnosed was confirmed at CDC by FA testing and histologic examination of formalin-fixed and paraffin-embedded tissue. The RNA extracted from formalin-fixed brain tissue was reverse transcribed and amplified by polymerase chain reaction. The nucleotide sequence identified a viral variant associated with rabies in insectivorous bats.

The patient lived in a heavily wooded area of the Catskill Mountains and had no history of foreign travel. She had no known history of contact with a bat, and examination of her home and outbuildings on the property revealed no evidence of bat infestation. She had been active outdoors, and her family kept horses, dogs, cats, rabbits, hamsters, and gerbils as pets; none of these pets had died with clinical signs consistent with rabies or disappeared. A survey of all neighbors on the same road indicated that no pets had died with clinical signs consistent with rabies or disappeared during the preceding 6 months.

As a result of close contact with the patient and/or her secretions, rabies postexposure prophylaxis was administered to 55 persons, including eight family members, three friends, 35 health-care workers, five members of the autopsy team, three transport personnel, and one mortician.

MMWR's Editorial Note: Human rabies in the United States is uncommon, primarily because of canine rabies-control programs and access to improved human rabies biologicals. Since 1980, 16 human rabies cases have been reported in the United States. Of these, seven were acquired from exposure outside the United States; for nine of the 16 cases, no definitive history of exposure was identified. Potential reasons for the failure of public health authorities to establish definitive exposures include unrecognized exposure, communication (i.e., language) barriers, and memory loss and impaired speech because of encephalitis at presentation.

Rabies is not usually diagnosed when patients initially receive medical evaluation. Since 1980, of the 16 persons with rabies diagnosed in the United States, rabies was diagnosed postmortem in nine. In addition, six cases of human-to-human transmission were diagnosed postmortem among recipients of transplanted corneas, whose donors died of an illness unrecognized as rabies (1).

Although rabies occurs rarely in the United States, it should be considered in the differential diagnosis of any acute progressive encephalitis of unknown etiology. In the absence of a clear history of animal exposure, the diagnosis of rabies may be difficult because of the nonspecific nature of initial clinical presentation. In addition to encephalitis, other manifestations suggestive of rabies in the case described in this report included paresthesia, hydrophobia, and copious salivation. Antemortem diagnosis of human rabies is possible through laboratory analysis of CSF, serum, saliva, and biopsy of nuchal skin or brain tissue. Although an early suspicion of rabies does not alter the prognosis, it may permit both institution of measures to reduce the number of persons exposed to rabies during patient care and identification of persons who are candidates for postexposure prophylaxis. Consultation with state and federal health officials is recommended for human rabies evaluation.

The case in this report is the sixth since 1980 in which insectivorous bats were implicated. A definite history of

exposure through a bat's bite was identified for only one of the six cases, while contact with a bat was associated with two additional cases; for three cases, the nature of exposure was not determined, but bat rabies variants were identified by molecular typing.

Bat rabies is enzootic in the United States, and cases have been reported from all of the 48 contiguous states (2). The rabies virus variant identified in this case, and in three of the other five occurring since 1980, is associated with the silver-haired bat (*Lasionycteris noctivagans*), a solitary, migratory species, with a preferred habitat of old-growth forest. This species is infrequently submitted for rabies diagnosis. For example, of 7047 bats submitted for rabies diagnosis and identified to species in New York from 1988 through 1992, 25 (0.4%) were *L. noctivagans*; of these, two were rabid (C. Trimarchi, New York State Department of Health, unpublished data,1993). The rabies virus variant associated with this species (identified in 11 of 12 isolates from silver-haired bats) was rarely found in other bats (five [2.1%] of 238 samples tested) or in terrestrial mammals (five [0.7%] of 700 samples).

Exposure to potentially rabid animals (e.g., paralyzed bats) should be avoided. Postexposure prophylaxis is recommended for all persons bitten or scratched by such animals and for nonbite exposures involving contamination of lesions or mucous membranes with saliva or other potentially infectious materials (3). Bat bites may be more difficult to recognize than those inflicted by terrestrial animals. Treatment should be considered for any physical contact with bats when bite or mucous membrane contact cannot be excluded. Because reduction of bat populations is neither feasible nor desirable as a means for controlling rabies in bats, efforts to prevent this problem should be directed toward the exclusion of bats from human dwellings to minimize direct contact with humans and companion animals. In addition, all dogs and cats in the 48 contiguous states and Alaska should have a current rabies vaccination (4).

References

1. Gode GR, Bhide NK. Two rabies deaths after corneal grafts from one donor. Lancet 1988;2:791.

2. Krebs JW, Holman RC, Hines U, Strine TW, Mandel EJ, Childs JE. Rabies surveillance in the United States during 1991. J Am Vet Med Assoc 1992;201:1836-48.

3. ACIP. Rabies prevention - United States, 1991: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991; 40 (No. RR-3).

4. CDC. Compendium of animal rabies control, 1993: recommendations of the National Association of State Public Health Veterinarians, Inc. MMWR 1993; 42 (No. RR-3).

RBE's Editorial Note:

The bat rabies situation of North 'America and Europe compare. Though rabies in insectivorous bats in Europe is continuously diagnosed (446 cases from 1977 to 1992), there is only one human case in the former Soviet Union confirmed to derive from a bat (see as well RBE 4/88, pp. 20-21). There is evidence from the case history as well as from monoclonal antibody characterization.

Because of the rareness of the implication of bats in rabies, publicity is needed that bats have to be considered as a potential for the disease.

The epidemiological bat rabies situation in Europe (as in the United States) though should not lead to overreacting. As all bat species are protected, animal control should only be directed toward the exclusion of bats from human dwellings.

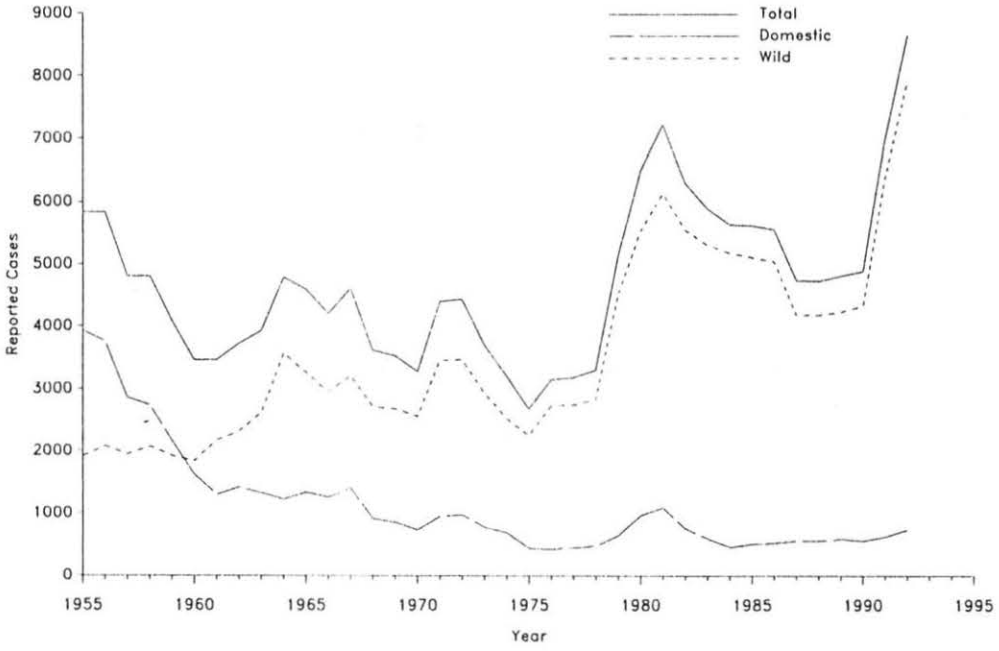
(Taken from Morbidity and Mortality Weekly Report (MMWR), No. 41, Vol. 42, October 22, 1993; Centers for Disease Control and Prevention, Atlanta, Georgia 30333, U.S.A.)

4.3 Development of Animal Rabies in the United States of America 1955 to 1992

by W.W. Müller
WHO/OIE Collaborating Centre for Rabies Surveillance and Research
Tübingen, Germany

In this BULLETIN references or comparisons are made to developments in countries other than in Europe. Articles on the rabies surveillance in the United States of America were presented for example in issues 1/87, 3/89 and 4/92. The latter issue was related to a more recent extension of a raccoon epizootic. How this affected the animal rabies in the country can be seen in FIGURE 2 - while rabies in domestic animals remains at a relative low level there were drastic increases in wildlife rabies.

FIGURE 2
Rabies - Wild and domestic animals, by year, United States and Puerto Rico, 1955-1992



Source of Figure 2:
Centers for Disease Control, Rabies Surveillance, United States.
In MMWR Published September 24, 1993, page 47

4.4 Computer Software Package to be Used in Veterinary Public Health

A computer software package, EPIZOO, has been developed specifically for analysis of information on animal health and diseases, including those transmissible to man. The software package includes indicators to analyse data on morbidity and mortality, geographical distribution, animal population characteristics, and dynamics of epizootics. It helps to prepare for investigations of animal population health and disease, to analyse diagnosis and consequences of illness, to design animal health programmes, to estimate costs and evaluate programmes. It also includes some sampling and other simple and practical statistical techniques.

It is written to facilitate information management for problem-solving, modelling, simulation studies and training in veterinary epidemiology and for action-oriented epidemiological analyses and decision-making. The EPIZOO version 2.4 fits onto one 1.4 megabyte diskette and can be used on IBM compatible personal computers with MS-DOS operating system.

The software package, which was developed by Professor V. Kouba (B.P. 516, 17000 Prague 7, Czech Republic), is easy to use and does not require training or even a manual. It can be obtained (in English only) free of charge by writing to Chief, Veterinary Public Health, World Health Organization, CH-1211 Geneva 27, Switzerland. The request should be accompanied by a 1.4 MB (31/2 inch) diskette.

(Taken from Weekly Epidemiological Record, Nr. 47, Vol. 68, p. 349, 1993.

4.5 Cordon Vaccination to Keep a Country or Parts of them Rabies-free, Threatened by Fox Mediated Rabies

by W.W. Müller
WHO Collaborating Centre for Rabies Surveillance and Research,
Tübingen/Germany

Oral vaccination of foxes against rabies has very favourably influenced the development of rabies in Europe. Entire countries and large infected areas have become rabies-free. Of the data collected in the WHO Collaborating Centre fort Rabies Surveillance and Research in Tübingen a reduction of rabies cases in 11 countries practicing oral vaccination from a maximum figure to 20% in 1992 can be noticed (annual maximum of these countries between 1977 and 1992 23,367 cases and 1992 4,791 cases - see as well RBE issue 3/92).

In spite of the general tendency of further improvement of the rabies situation there have been set-backs in as much as already rabies-free countries or parts of them were reinfected (Austria, Belgium, Germany, Italy, Luxembourg, Slovenia, Switzerland). These reinfections developed usually into fierce outbreaks as the virus hit susceptable and large fox populations.

Though the oral vaccination was initially also developed to protect a certain area (country) from being infected or reinfected, the vaccination of a rabies-free zone (cordon) for preventional purposes is not always practiced. The vaccination is only started when the first rabies case is diagnosed.

This comment is written to suggest strongly to make use of the cordon vaccination. There is no doubt a financial aspect to the preventional cordon vaccinaiton or waiting for the first rabies case. Nevertheless, it is difficult to foresee how a situation develops, but for a faster way to eradicate rabies or keep areas (countries) rabies-free the cordon vaccination is absolutely necessary.

TABLE 1

EUR EUROPE 3/93 RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
ALB	ALBANIA **							0						0		0
AUT	AUSTRIA	-	3	11	-	7	-	21	159	6	6	7	-	178		199
BEL	BELGIUM *							0						0		0
BUL	BULGARIA **							0						0		0
BYE	BELARUS	2	-	4	-	-	-	6	13	-	-	-	-	13		19
CRO	CROATIA	2	4	-	-	-	-	6	40	-	-	-	-	40		46
CZH	CZECH REPUBLIC	1	3	-	-	-	-	4	87	-	15	-	1	103		107
DEN	DENMARK *							0						0		0
DEU	FED.REP. OF GERMANY	-	2	13	-	4	-	19	132	2	2	2	2	140		159
EST	ESTONIA	1	4	2	-	-	1	8	16	2	1	-	13	32		40
FIN	FINLAND *							0						0		0
FRA	FRANCE	-	2	3	-	6	-	11	40	1	1	1	-	43		54
GRE	GREECE *							0						0		0
HUN	HUNGARY	11	31	11	-	1	-	54	164	-	2	-	-	166		220
ICE	ICELAND *							0						0		0
IRE	IRELAND *							0						0		0
ITA	ITALY							0	17	1	1	-	-	19		19
LTU	LITHUANIA	5	5	12	-	-	-	22	4	-	-	-	-	4		26
LUX	LUXEMBOURG *							0						0		0
LVA	LATVIA	7	10	3	-	1	-	21	23	1	3	-	14	41	1	63
MLD	MOLDOVA **							0						0		0
NET	NETHERLANDS							0	-	-	-	-	5	5		5
NOR	NORWAY *							0						0		0
POL	POLAND	34	32	71	1	5	2	145	454	2	26	14	52	548		693
POR	PORTUGAL *							0						0		0
ROM	ROMANIA	4	-	2	2	1	-	9	8	-	-	-	-	8		17
RUS	RUSSIAN FEDERATION	15	7	46	4	1	1	74	11	2	-	-	4	17		91
SPA	SPAIN *							0						0		0
SVK	SLOVAK REPUBLIC	4	12	1	-	1	-	18	87	1	-	1	2	91		109
SVN	SLOVENIA	-	2	-	-	-	-	2	96	4	2	-	-	102		104
SWE	SWEDEN *							0						0		0
SWI	SWITZERLAND + LIECHT	-	1	2	-	-	-	3	47	3	2	-	1	53		56
TUR	TURKEY	55	4	17	-	-	2	78	-	-	-	-	1	1		79
UKR	UKRAINE **							0						0		0
UNK	UNITED KINGDOM *							0						0		0
YUG	YUGOSLAVIA	-	9	-	-	1	-	10	7	-	-	-	-	7		17
TOTAL		141	131	198	7	28	6	511	1405	25	61	25	95	1611	1	2123
PER CENT		6.6	6.2	9.3	0.3	1.3	0.3	24.1	66.2	1.2	2.9	1.2	4.5	75.9	0.0	100.0

* NO CASES ** NO DATA

TABLE 2

EUR EUROPE 1-3/93 RABIES CASES 1. 1.93 - 30.09.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
ALB	ALBANIA **							0						0		0
AUT	AUSTRIA	-	3	14	-	10	-	27	337	17	9	12	-	375		402
BEL	BELGIUM							0	-	1	-	-	-	1		1
BUL	BULGARIA **	-	-	1	-	1	-	2	1	-	-	-	-	1		3
BYE	BELARUS	24	7	8	-	-	-	39	47	-	-	-	4	51	1	91
CRO	CROATIA	11	7	-	-	-	-	18	183	-	-	-	-	183		201
CZH	CZECH REPUBLIC	2	9	-	1	-	1	13	267	1	24	3	2	297		310
DEN	DENMARK							0	-	-	-	-	1	1		1
DEU	FED.REP. OF GERMANY	3	17	30	3	12	1	66	343	15	8	17	6	389		455
EST	ESTONIA	16	8	6	-	-	1	31	53	2	2	-	26	83		114
FIN	FINLAND *							0						0		0
FRA	FRANCE	4	11	11	-	13	-	39	176	6	11	1	1	195		234
GRE	GREECE *							0						0		0
HUN	HUNGARY	67	81	33	-	4	1	186	658	-	3	3	1	665		851
ICE	ICELAND *							0						0		0
IRE	IRELAND *							0						0		0
ITA	ITALY	-	1	-	-	-	-	1	43	5	2	1	1	52		53
LTU	LITHUANIA	20	14	24	-	-	-	58	10	-	2	-	6	18		76
LUX	LUXEMBOURG							0	-	-	-	1	-	1		1
LVA	LATVIA	22	17	6	1	1	-	47	42	2	3	-	24	71	1	119
MLD	MOLDOVA **	-	1	-	-	-	-	1	2	-	-	-	-	2		3
NET	NETHERLANDS							0	-	-	-	-	10	10		10
NOR	NORWAY *							0						0		0
POL	POLAND	109	114	110	4	5	4	346	1439	6	65	52	159	1721		2067
POR	PORTUGAL *							0						0		0
ROM	ROMANIA	8	11	7	2	3	-	31	29	-	-	1	4	34		65
RUS	RUSSIAN FEDERATION	105	42	230	30	71	47	525	90	2	-	-	14	106	2	633
SPA	SPAIN 1)	5	-	-	-	-	-	5						0		5
SVK	SLOVAK REPUBLIC	14	33	1	-	1	-	49	264	3	2	1	2	272		321
SVN	SLOVENIA	4	8	-	-	-	-	12	245	8	4	3	-	260		272
SWE	SWEDEN *							0						0		0
SWI	SWITZERLAND + LIECHT	-	2	3	1	-	-	6	79	9	2	-	1	91		97
TUR	TURKEY	164	14	30	1	2	6	217	-	1	-	-	1	2		219
UKR	UKRAINE **							0						0		0
UNK	UNITED KINGDOM *							0						0		0
YUG	YUGOSLAVIA	3	20	1	-	1	-	25	44	-	-	-	-	44		69
TOTAL		581	420	515	43	124	61	1744	4352	78	137	95	263	4925	4	6673
PER CENT		8.7	6.3	7.7	0.6	1.9	0.9	26.1	65.2	1.2	2.1	1.4	3.9	73.8	0.1	100.0

* NO CASES ** NO DATA 1) NORTH AFRICA

TABLE 3

EUR EUROPE 3/93 RABIES CASES 'OTHER ANIMAL SPECIES' 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	OTHER DOMESTIC ANIMASLS			OTHER WILD ANIMALS								TOTAL
		OTH.DOM. CARNIVO	DONKEY	PIG	WOLF	RACCOON DOG	WILD BOAR	INSECTIV. BATS	SQUIRREL	BLACK RAT	HOUSE MOUSE	OTHERS	
CZH	CZECH REPUBLIC	-	-	-	-	-	-	-	1	-	-	-	1
DEU	FED.REP. OF GERMANY	-	-	-	-	-	-	2	-	-	-	-	2
EST	ESTONIA	-	-	1	-	13	-	-	-	-	-	-	14
LVA	LATVIA	-	-	-	1	13	-	-	-	-	-	-	14
NET	NETHERLANDS	-	-	-	-	-	-	5	-	-	-	-	5
POL	POLAND	1	-	1	-	49	1	-	2	-	-	-	54
RUS	RUSSIAN FEDERATION	-	-	1	-	3	-	-	-	1	-	-	5
SVK	SLOVAK REPUBLIC	-	-	-	-	-	-	-	-	-	-	2	2
SWI	SWITZERLAND + LIECHT	-	-	-	-	-	-	1	-	-	-	-	1
TUR	TURKEY	-	2	-	-	-	-	-	-	-	1	-	3
TOTAL		1	2	3	1	78	1	8	3	1	1	2	101
PER CENT		1.0	2.0	3.0	1.0	77.2	1.0	7.9	3.0	1.0	1.0	2.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
AUT AUSTRIA															
105 JENNERSDORF							0	1	-	-	-	-	1		1
107 NEUSIEDL AM SEE							0	6	-	-	-	-	6		6
309 GMUEND							0	1	-	-	-	-	1		1
317 MOEDLING	-	1	-	-	-	-	1						0		1
318 NEUNKIRCHEN	-	-	1	-	-	-	1						0		1
506 ZELL AM SEE	-	1	2	-	-	-	3	9	1	-	1	-	11		14
606 GRAZ-LAND							0	1	-	-	-	-	1		1
702 IMST							0	1	-	-	-	-	1		1
703 INNSBRUCK-LAND							0	25	-	-	-	-	25		25
705 KUFSTEIN							0	6	1	-	-	-	7		7
709 SCHWAZ	-	-	2	-	2	-	4	59	3	5	3	-	70		74
802 BREGENZ	-	1	6	-	5	-	12	49	1	1	2	-	53		65
803 DORNBIRN							0	1	-	-	1	-	2		2
TOTAL	0	3	11	0	7	0	21	159	6	6	7	0	178	0	199
PER CENT	0.0	1.5	5.5	0.0	3.5	0.0	10.6	79.9	3.0	3.0	3.5	0.0	89.4	0.0	100.0
DEU FEDERAL REPUBLIC OF GERMANY															
01 SCHLESWIG-HOLSTEIN							0						0		0
02 HAMBURG							0						0		0
03 NIEDERSACHSEN							0	5	-	-	-	1	6		6
04 BREMEN							0						0		0
05 NORDRHEIN-WESTFALEN	-	-	1	-	-	-	1	9	-	-	-	-	9		10
06 HESSEN							0	3	-	-	2	-	5		5
07 RHEINLAND-PFALZ	-	1	5	-	4	-	10	36	1	1	-	-	38		48
08 BADEN-WUERTTEMBERG	-	-	5	-	-	-	5	40	1	1	-	-	42		47
09 BAYERN							0	26	-	-	-	-	26		26
10 SAARLAND	-	-	2	-	-	-	2	10	-	-	-	-	10		12
11 Berlin							0						0		0
12 Brandenburg							0						0		0
13 Mecklenb.-Vorpommern	-	1	-	-	-	-	1	-	-	-	-	1	1		2
14 Sachsen							0						0		0
15 Sachsen-Anhalt							0	3	-	-	-	-	3		3
16 Thueringen							0						0		0
TOTAL	0	2	13	0	4	0	19	132	2	2	2	2	140	0	159
PER CENT	0.0	1.3	8.2	0.0	2.5	0.0	11.9	83.0	1.3	1.3	1.3	1.3	88.1	0.0	100.0

RABIES CASES

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
BYE BELARUS													1. 1.93 - 31.03.93		
01 Brest Region	1	1	-	-	-	-	2	1	-	-	-	1	2		4
02 Vitebsk Region	5	1	-	-	-	-	6	3	-	-	-	-	3		9
03 Gomel Region							0	2	-	-	-	1	3		3
04 Grodno Region	3	-	-	-	-	-	3						0		3
05 Minsk Region							0	1	-	-	-	-	1		1
06 Mogiley Region	2	-	-	-	-	-	2	13	-	-	-	-	13	1	16
TOTAL	11	2	0	0	0	0	13	20	0	0	0	2	22	1	36
PER CENT	30.6	5.6	0.0	0.0	0.0	0.0	36.1	55.6	0.0	0.0	0.0	5.6	61.1	2.8	100.0
BYE BELARUS													1. 4.93 - 30. 6.93		
01 Brest Region							0						0		0
02 Vitebsk Region	10	4	2	-	-	-	16	4	-	-	-	2	6		22
03 Gomel Region	-	1	-	-	-	-	1	2	-	-	-	-	2		3
04 Grodno Region	-	-	2	-	-	-	2						0		2
05 Minsk Region							0						0		0
06 Mogiley Region	1	-	-	-	-	-	1	8	-	-	-	-	8		9
TOTAL	11	5	4	0	0	0	20	14	0	0	0	2	16	0	36
PER CENT	30.6	13.9	11.1	0.0	0.0	0.0	55.6	38.9	0.0	0.0	0.0	5.6	44.4	0.0	100.0
BYE BELARUS													1. 7.93 - 30. 9.93		
01 Brest Region	-	-	1	-	-	-	1						0		1
02 Vitebsk Region	1	-	2	-	-	-	3	2	-	-	-	-	2		5
03 Gomel Region	1	-	-	-	-	-	1	2	-	-	-	-	2		3
04 Grodno Region							0	2	-	-	-	-	2		2
05 Minsk Region	-	-	1	-	-	-	1						0		1
06 Mogiley Region							0	7	-	-	-	-	7		7
TOTAL	2	0	4	0	0	0	6	13	0	0	0	0	13	0	19
PER CENT	10.5	0.0	21.1	0.0	0.0	0.0	31.6	68.4	0.0	0.0	0.0	0.0	68.4	0.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
CRO	**CROATIA**															
004	BJELOVAR	-	1	-	-	-	-	1	1	-	-	-	-	1		2
012	CAZMA							0	1	-	-	-	-	1		1
014	DELNICE	-	2	-	-	-	-	2	1	-	-	-	-	1		3
021	DUGO SELO							0	1	-	-	-	-	1		1
024	DURDEVAC	-	1	-	-	-	-	1	3	-	-	-	-	3		4
025	GARESNICA							0	1	-	-	-	-	1		1
034	JASTREBARSKO							0	2	-	-	-	-	2		2
036	KARLOVAC							0	1	-	-	-	-	1		1
040	KOPRIVNICA							0	2	-	-	-	-	2		2
046	KUTINA	1	-	-	-	-	-	1	6	-	-	-	-	6		7
052	NASICE							0	1	-	-	-	-	1		1
053	NOVA GRADISKA							0	1	-	-	-	-	1		1
073	RIJEKA							0	5	-	-	-	-	5		5
079	SLAVONSKI BROD							0	3	-	-	-	-	3		3
082	SPLIT							0	1	-	-	-	-	1		1
086	VALPOVO							0	1	-	-	-	-	1		1
088	VINKOVCI	1	-	-	-	-	-	1						0		1
100	ZLATAR BISTRICA							0	1	-	-	-	-	1		1
101	ZUPANJA							0	1	-	-	-	-	1		1
102	GRAD ZAGREB							0	7	-	-	-	-	7		7
TOTAL		2	4	0	0	0	0	6	40	0	0	0	0	40	0	46
PER CENT		4.3	8.7	0.0	0.0	0.0	0.0	13.0	87.0	0.0	0.0	0.0	0.0	87.0	0.0	100.0
CZH	**CZECH REPUBLIC**															
00	DISTRICT OF PRAGUE							0						0		0
01	CENTRAL BOHEMIA							0	9	-	-	-	-	9		9
02	SOUTH BOHEMIA	-	1	-	-	-	-	1	3	-	-	-	-	3		4
03	WEST BOHEMIA							0						0		0
04	NORTH BOHEMIA	1	-	-	-	-	-	1	25	-	3	-	-	28		29
05	EAST BOHEMIA							0	29	-	10	-	-	39		39
06	SOUTH MORAVIA							0	9	-	1	-	1	11		11
07	NORTH MORAVIA	-	2	-	-	-	-	2	12	-	1	-	-	13		15
TOTAL		1	3	0	0	0	0	4	87	0	15	0	1	103	0	107
PER CENT		0.9	2.8	0.0	0.0	0.0	0.0	3.7	81.3	0.0	14.0	0.0	0.9	96.3	0.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
EST ESTONIA															
03 Ida-Virumaa	1	-	-	-	-	-	1						0		1
04 Jogevamaa	-	1	-	-	-	-	1						0		1
05 Jaervamaa	-	-	1	-	-	-	1	1	-	-	-	2	3		4
07 Laeaene-Virumaa	-	1	-	-	-	-	1	4	-	-	-	1	5		6
08 Polvamaa							0	-	-	-	-	2	2		2
09 Paernumaa	-	-	-	-	-	1	1						0		1
12 Tartumaa	-	2	-	-	-	-	2	5	1	-	-	6	12		14
13 Valgamaa	-	-	1	-	-	-	1	1	-	-	-	-	1		2
14 Viljandimaa							0	3	1	-	-	1	5		5
15 Vorumaa							0	2	-	1	-	1	4		4
TOTAL	1	4	2	0	0	1	8	16	2	1	0	13	32	0	40
PER CENT	2.5	10.0	5.0	0.0	0.0	2.5	20.0	40.0	5.0	2.5	0.0	32.5	80.0	0.0	100.0
FRA FRANCE															
25 DOUBS							0	2	-	-	-	-	2		2
51 MARNE							0	2	-	-	-	-	2		2
52 MARNE (HAUTE)	-	-	-	-	1	-	1						0		1
54 MEURTHE ET MOSELLE	-	1	1	-	2	-	4	1	-	-	-	-	1		5
55 MEUSE	-	-	1	-	-	-	1	8	-	-	-	-	8		9
67 RHIN (BAS)							0	-	-	-	1	-	1		1
68 RHIN (HAUT)	-	-	-	-	1	-	1	4	-	-	-	-	4		5
70 SAONE (HAUTE)	-	-	1	-	-	-	1	4	1	1	-	-	6		7
88 VOSGES	-	1	-	-	2	-	3	19	-	-	-	-	19		22
TOTAL	0	2	3	0	6	0	11	40	1	1	1	0	43	0	54
PER CENT	0.0	3.7	5.6	0.0	11.1	0.0	20.4	74.1	1.9	1.9	1.9	0.0	79.6	0.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
HUN	**HUNGARY**															
01	BUDAPEST							0	4	-	-	-	-	4		4
02	BARANYA	-	7	-	-	-	-	7	14	-	-	-	-	14		21
03	BACS-KISKUN	2	3	1	-	-	-	6	6	-	-	-	-	6		12
04	BEKES	1	2	-	-	-	-	3	10	-	-	-	-	10		13
05	BORSOD-ABAUJ-ZEMPLEN	1	4	-	-	-	-	5	20	-	-	-	-	20		25
06	CSONGRAD	-	2	2	-	-	-	4	13	-	-	-	-	13		17
07	FEJER	-	1	-	-	-	-	1	11	-	-	-	-	11		12
08	GYOER-SOPRON							0	3	-	1	-	-	4		4
09	HAJDU-BIHAR	1	-	4	-	-	-	5	5	-	-	-	-	5		10
10	HEVES	-	1	-	-	-	-	1	6	-	-	-	-	6		7
11	KOMAROM							0	8	-	-	-	-	8		8
12	NOGRAD	-	1	-	-	-	-	1	5	-	-	-	-	5		6
13	PEST	1	1	1	-	-	-	3	12	-	-	-	-	12		15
14	SOMOGY	3	4	1	-	1	-	9	12	-	-	-	-	12		21
15	SZABOLCS-SZATMAR	-	2	1	-	-	-	3	4	-	-	-	-	4		7
16	SZOLNOK	-	1	1	-	-	-	2	3	-	-	-	-	3		5
17	TOLNA	2	2	-	-	-	-	4	5	-	-	-	-	5		9
18	VAS							0	7	-	-	-	-	7		7
19	VESZPREM							0	13	-	1	-	-	14		14
20	ZALA							0	3	-	-	-	-	3		3
TOTAL		11	31	11	0	1	0	54	164	0	2	0	0	166	0	220
PER CENT		5.0	14.1	5.0	0.0	0.5	0.0	24.5	74.5	0.0	0.9	0.0	0.0	75.5	0.0	100.0
ITA	**ITALY**															
34	TRIESTE E GORIZIA							0	1	-	-	-	-	1		1
39	BOLZANO							0	16	1	1	-	-	18		18
TOTAL		0	0	0	0	0	0	0	17	1	1	0	0	19	0	19
PER CENT		0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.5	5.3	5.3	0.0	0.0	100.0	0.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
LTU LITHUANIA															
36 Birzu	-	2	-	-	-	-	2						0		2
38 Varenos	-	-	1	-	-	-	1						0		1
39 Vilkaviskio	-	1	-	-	-	-	1						0		1
41 Vilniaus	-	-	1	-	-	-	1	1	-	-	-	-	1		2
47 Joniskio							0	1	-	-	-	-	1		1
49 Kaisiadoriu	-	-	1	-	-	-	1						0		1
52 Kauno	-	-	3	-	-	-	3						0		3
56 Kretdingos	1	-	-	-	-	-	1						0		1
57 Kupiskio	-	1	-	-	-	-	1						0		1
65 Pakruojo	-	-	2	-	-	-	2						0		2
66 Panevezio	1	-	-	-	-	-	1						0		1
67 Pasvalio	1	-	1	-	-	-	2						0		2
71 Radviliskio	-	-	1	-	-	-	1						0		1
73 Rokiskio	1	-	-	-	-	-	1						0		1
81 Ukmerges	1	-	-	-	-	-	1	1	-	-	-	-	1		2
85 Salcininku	-	1	2	-	-	-	3	1	-	-	-	-	1		4
TOTAL	5	5	12	0	0	0	22	4	0	0	0	0	4	0	26
PER CENT	19.2	19.2	46.2	0.0	0.0	0.0	84.6	15.4	0.0	0.0	0.0	0.0	15.4	0.0	100.0
NET NETHERLANDS															
01 DRENTHE							0	-	-	-	-	1	1		1
08 OVERIJSSEL							0	-	-	-	-	2	2		2
10 ZUID-HOLLAND							0	-	-	-	-	2	2		2
TOTAL	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5

LVA LATVIA — RABIES CASES — 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
01	Aizkraukle							0	-	-	-	-	1	1		1
02	Aluksne	-	-	1	-	-	-	1	1	1	-	-	-	2		3
05	Cesis							0	2	-	-	-	-	2		2
07	Dobele							0	-	-	-	-	1	1		1
10	Jelgava							0	1	-	-	-	-	1		1
11	Kraslava	-	-	1	-	-	-	1						0		1
12	Kuldiga	-	1	-	-	1	-	2						0		2
13	Liepaja	-	3	-	-	-	-	3	2	-	-	-	2	4		7
15	Ludza	1	-	-	-	-	-	1						0		1
16	Madona	-	2	-	-	-	-	2	3	-	-	-	1	4		6
17	Ogre	2	2	-	-	-	-	4						0		4
18	Preili							0	1	-	-	-	-	1		1
19	Rezekne	1	-	-	-	-	-	1						0		1
21	Saldus	-	-	1	-	-	-	1	3	-	1	-	5	9	1	11
22	Talsi							0	1	-	-	-	1	2		2
23	Tukums							0	-	-	-	-	1	1		1
25	Valmiera							0	2	-	-	-	1	3		3
26	Ventspils	3	2	-	-	-	-	5	7	-	2	-	1	10		15
TOTAL		7	10	3	0	1	0	21	23	1	3	0	14	41	1	63
PER CENT		11.1	15.9	4.8	0.0	1.6	0.0	33.3	36.5	1.6	4.8	0.0	22.2	65.1	1.6	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
ROM ROMANIA															
06 BISTRITA-NASAUD	1	-	-	-	-	-	1						0		1
09 BRAILA	-	-	-	1	-	-	1						0		1
10 BUZAU	1	-	-	-	-	-	1						0		1
17 DOLJ	-	-	2	1	1	-	4	2	-	-	-	-	2		6
20 GORJ							0	1	-	-	-	-	1		1
22 HUNEDOARA							0	1	-	-	-	-	1		1
29 OLT							0	1	-	-	-	-	1		1
30 PRAHOVA	1	-	-	-	-	-	1						0		1
32 SALAJ							0	2	-	-	-	-	2		2
34 SUCEAVA	1	-	-	-	-	-	1						0		1
39 VILCEA							0	1	-	-	-	-	1		1
TOTAL	4	0	2	2	1	0	9	8	0	0	0	0	8	0	17
PER CENT	23.5	0.0	11.8	11.8	5.9	0.0	52.9	47.1	0.0	0.0	0.0	0.0	47.1	0.0	100.0
SVK SLOVAK REPUBLIC															
10 DISTRICT OF BRATISLAV							0						0		0
11 WEST SLOVAKIA	-	2	-	-	-	-	2	18	-	-	-	1	19		21
12 CENTRAL SLOVAKIA	3	5	1	-	1	-	10	30	-	-	1	1	32		42
13 EAST SLOVAKIA	1	5	-	-	-	-	6	39	1	-	-	-	40		46
TOTAL	4	12	1	0	1	0	18	87	1	0	1	2	91	0	109
PER CENT	3.7	11.0	0.9	0.0	0.9	0.0	16.5	79.8	0.9	0.0	0.9	1.8	83.5	0.0	100.0
YUG YUGOSLAVIA															
60 SR SRBIJA							0	1	-	-	-	-	1		1
61 SAP VOJVODINA	-	9	-	-	1	-	10	6	-	-	-	-	6		16
TOTAL	0	9	0	0	1	0	10	7	0	0	0	0	7	0	17

RUS RUSSIAN FEDERATION — RABIES CASES — 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
08	Pskov Region	-	-	11	-	-	-	11	1	-	-	-	1	2		13
12	Twer Region	1	-	1	-	-	-	2						0		2
13	Kaluga Region	-	-	-	-	1	-	1	2	-	-	-	-	2		3
15	Moscow Region	-	-	2	-	-	-	2						0		2
16	Oryol Region							0	-	1	-	-	2	3		3
19	Tula Region	1	1	-	-	-	-	2	1	-	-	-	1	2		4
26	Belgorod Region	-	-	2	-	-	-	2	1	-	-	-	-	1		3
27	Voronezh Region	-	-	1	-	-	-	1	1	-	-	-	-	1		2
28	Kursk Region	-	-	1	-	-	-	1	1	-	-	-	-	1		2
29	Lipetsk Region	-	1	-	-	-	-	1						0		1
31	Astrakhan Region	1	1	3	-	-	-	5						0		5
32	Volgograd Region	1	1	-	-	-	-	2						0		2
33	Samara Region	1	-	1	-	-	-	2	2	1	-	-	-	3		5
34	Penza Region	-	1	3	-	-	-	4						0		4
35	Saratov Region	1	-	1	-	-	-	2						0		2
36	Ulyanovsk Region	3	-	1	-	-	-	4						0		4
38	Republic of Tatarstan	2	1	1	-	-	-	4	1	-	-	-	-	1		5
41	Rostov Region	-	1	2	-	-	-	3						0		3
42	Orenburg Region	-	-	1	1	-	-	2						0		2
43	Perm Region	1	-	1	-	-	-	2						0		2
44	Republic of Bashkorto	2	-	13	3	-	1	19	1	-	-	-	-	1		20
45	Republic of Odmurtiya	1	-	-	-	-	-	1						0		1
46	Kaliningrad Region	-	-	1	-	-	-	1						0		1
TOTAL		15	7	46	4	1	1	74	11	2	0	0	4	17	0	91
PER CENT		16.5	7.7	50.5	4.4	1.1	1.1	81.3	12.1	2.2	0.0	0.0	4.4	18.7	0.0	100.0

POL POLAND — RABIES CASES — 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
01	WARSZAWA							0	5	-	-	-	-	5		5
05	BIALYSTOK	-	1	5	-	-	-	6	23	1	-	-	7	31		37
07	BIELSKO-BIALA							0	5	-	4	-	-	9		9
09	BYDGOSZCZ	1	1	2	-	-	-	4	14	-	1	-	1	16		20
11	CHELM							0	1	-	-	-	-	1		1
13	CIECHANOW	3	-	3	-	-	-	6	9	-	1	-	-	10		16
15	CZESTOCHOWA							0	3	-	-	-	-	3		3
17	ELBLAG	2	2	3	-	-	-	7	3	-	-	-	1	4		11
19	GDANSK	2	5	7	-	5	1	20	18	-	2	-	9	29		49
21	GORZOW							0	16	-	-	-	1	17		17
23	JELENIA GORA	2	1	3	-	-	-	6	20	-	-	-	-	20		26
25	KALISZ							0	14	-	2	1	-	17		17
27	KATOWICE							0	7	-	-	-	-	7		7
29	KIELCE	1	1	-	-	-	-	2	-	-	-	1	1	2		4
31	KONIN							0	4	-	-	-	-	4		4
33	KOSZALIN	2	-	2	-	-	-	4	40	1	2	5	8	56		60
37	KROSNO	1	1	-	-	-	-	2	11	-	-	-	-	11		13
39	LEGNICA							0	10	-	-	-	-	10		10
41	LESZNO	1	-	-	-	-	-	1	7	-	-	-	-	7		8
43	LUBLIN							0	1	-	-	-	-	1		1
45	LOMZA	-	2	1	-	-	-	3	7	-	2	-	1	10		13
47	LODZ							0	2	-	-	-	-	2		2
49	NOWY SACZ	3	-	-	-	-	-	3	3	-	1	-	-	4		7
51	OLSZTYN	2	1	23	-	-	-	26	14	-	1	-	2	17		43
53	OPOLE	-	1	-	-	-	-	1	8	-	2	-	-	10		11

POL CONTINUED

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
55	OSTROLEKA	-	-	1	-	-	-	1	4	-	1	-	-	5		6
57	PILA	1	-	-	-	-	-	1	12	-	-	-	-	12		13
59	PIOTRKOW TRYB							0	2	-	-	-	-	2		2
61	PLOCK	1	-	-	-	-	-	1	4	-	-	-	-	4		5
63	POZNAN	2	1	-	-	-	-	3	25	-	1	2	-	28		31
65	PRZEMYSL	2	2	-	-	-	-	4	4	-	-	-	-	4		8
67	RADOM	-	-	1	-	-	-	1	1	-	-	1	-	2		3
69	RZESZOW	1	1	-	-	-	-	2	4	-	-	-	-	4		6
71	SIEDLCE	-	-	1	-	-	-	1	3	-	-	-	-	3		4
75	SKIERNIEWICE	1	2	-	-	-	-	3	7	-	-	-	-	7		10
77	SLUPSK	2	2	1	-	-	-	5	16	-	2	2	4	24		29
79	SUWALKI	1	1	2	1	-	-	5	10	-	1	-	5	16		21
81	SZCZECIN	-	1	3	-	-	-	4	23	-	-	1	7	31		35
83	TARNOBRZEG	2	-	-	-	-	-	2	11	-	2	-	-	13		15
85	TARNOW	-	1	-	-	-	-	1	2	-	-	-	-	2		3
87	TORUN	-	-	7	-	-	1	8	11	-	1	-	2	14		22
89	WALBRZYCH	-	1	6	-	-	-	7	21	-	-	-	-	21		28
91	WLOCLAWEK	-	2	-	-	-	-	2	4	-	-	-	-	4		6
93	WROCLAW	1	2	-	-	-	-	3	14	-	-	-	3	17		20
95	ZAMOSC							0	16	-	-	1	-	17		17
97	ZIELONA GORA							0	15	-	-	-	-	15		15
TOTAL		34	32	71	1	5	2	145	454	2	26	14	52	548	0	693
PER CENT		4.9	4.6	10.2	0.1	0.7	0.3	20.9	65.5	0.3	3.8	2.0	7.5	79.1	0.0	100.0

RABIES CASES 1. 7.93 - 30. 9.93

LOCATION CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
SVN SLOVENIA															
01 AJDOVSCINA							0	7	-	-	-	-	7		7
04 CERKNICA							0	1	-	-	-	-	1		1
11 IDRIJA							0	10	1	-	-	-	11		11
14 JESENICE							0	1	-	-	-	-	1		1
16 KOCEVJE							0	1	-	-	-	-	1		1
18 KRANJ	-	1	-	-	-	-	1	4	-	-	-	-	4		5
28 LJUBLJANA VIC RUDNIK							0	7	-	-	-	-	7		7
29 LJUTOMER							0	1	-	-	-	-	1		1
30 LOGATEC							0	3	-	-	-	-	3		3
37 NOVA GORICA							0	8	-	-	-	-	8		8
38 NOVO MESTO							0	1	-	-	-	-	1		1
44 RADOVLJICA							0	12	-	-	-	-	12		12
53 SKOFJA LOKA							0	24	2	1	-	-	27		27
55 TOLMIN	-	1	-	-	-	-	1	10	1	1	-	-	12		13
60 VRHNIKA							0	6	-	-	-	-	6		6
TOTAL	0	2	0	0	0	0	2	96	4	2	0	0	102	0	104
PER CENT	0.0	1.9	0.0	0.0	0.0	0.0	1.9	92.3	3.8	1.9	0.0	0.0	98.1	0.0	100.0
SWI SWITZERLAND AND LIECHTENSTEIN															
01 AARGAU	-	1	-	-	-	-	1	3	-	1	-	-	4		5
04 BASEL-STADT							0	5	-	1	-	-	6		6
05 BASEL-LAND							0	4	3	-	-	-	7		7
06 BERN							0	9	-	-	-	-	9		9
08 GENEVE							0	-	-	-	-	1	1		1
17 SOLOTHURN							0	4	-	-	-	-	4		4
18 ST.GALLEN	-	-	1	-	-	-	1						0		1
26 JURA	-	-	1	-	-	-	1	22	-	-	-	-	22		23
TOTAL	0	1	2	0	0	0	3	47	3	2	0	1	53	0	56
PER CENT	0.0	1.8	3.6	0.0	0.0	0.0	5.4	83.9	5.4	3.6	0.0	1.8	94.6	0.0	100.0

TUR TURKEY — RABIES CASES — 1. 7.93 - 30. 9.93

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
01	ADANA	1	-	-	-	-	-	1						0		1
02	ADIYAMAN	-	-	1	-	-	-	1						0		1
05	AMASYA	1	-	-	-	-	-	1						0		1
09	AYDIN	1	-	-	-	-	-	1						0		1
14	BOLU	5	-	6	-	-	-	11						0		11
16	BURSA	2	-	-	-	-	-	2						0		2
17	CANAKKALE	-	-	1	-	-	-	1						0		1
20	DENIZLI	1	-	-	-	-	-	1	-	-	-	-	1	1		2
21	DIYARBAKIR	2	-	2	-	-	2	6						0		6
31	HATAY	1	-	-	-	-	-	1						0		1
32	ISPARTA	-	2	-	-	-	-	2						0		2
33	ICEL	-	1	-	-	-	-	1						0		1
34	ISTANBUL	10	-	1	-	-	-	11						0		11
35	IZMIR	1	-	-	-	-	-	1						0		1
41	KOCAELI	7	1	-	-	-	-	8						0		8
42	KONYA	3	-	1	-	-	-	4						0		4
43	KUETAHYA	2	-	-	-	-	-	2						0		2
44	MALATYA	1	-	-	-	-	-	1						0		1
45	MANISA	4	-	1	-	-	-	5						0		5
47	MARDIN	2	-	1	-	-	-	3						0		3
54	SAKARYA	-	-	2	-	-	-	2						0		2
55	SAMSUN	4	-	1	-	-	-	5						0		5
58	SIVAS	1	-	-	-	-	-	1						0		1
61	TRABZON	1	-	-	-	-	-	1						0		1
64	USAK	1	-	-	-	-	-	1						0		1
67	ZONGULDAK	1	-	-	-	-	-	1						0		1
68	AKSARAY	2	-	-	-	-	-	2						0		2
70	KARAMAN	1	-	-	-	-	-	1						0		1
TOTAL		55	4	17	0	0	2	78	0	0	0	0	1	1	0	79
PER CENT		69.6	5.1	21.5	0.0	0.0	2.5	98.7	0.0	0.0	0.0	0.0	1.3	1.3	0.0	100.0

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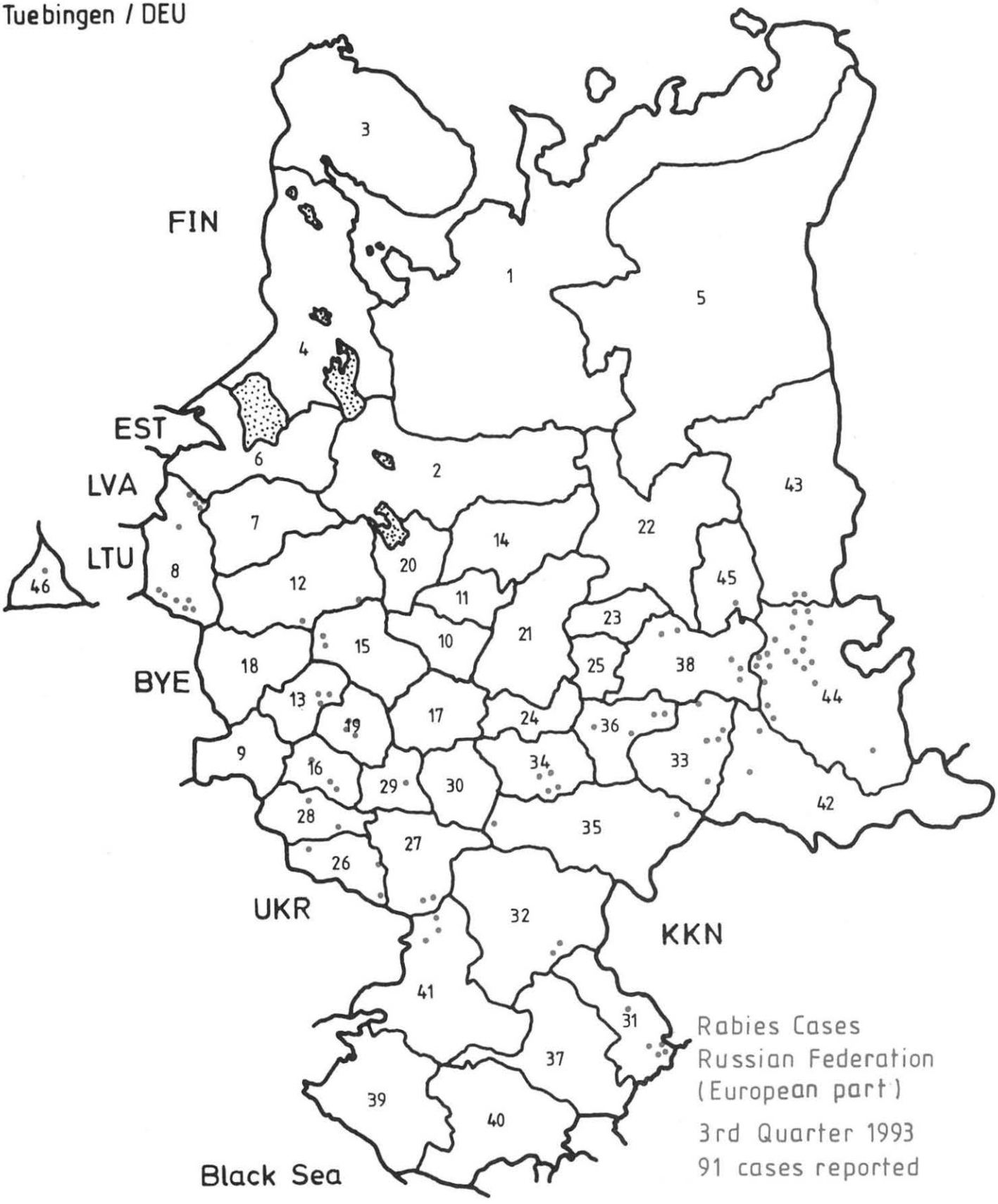
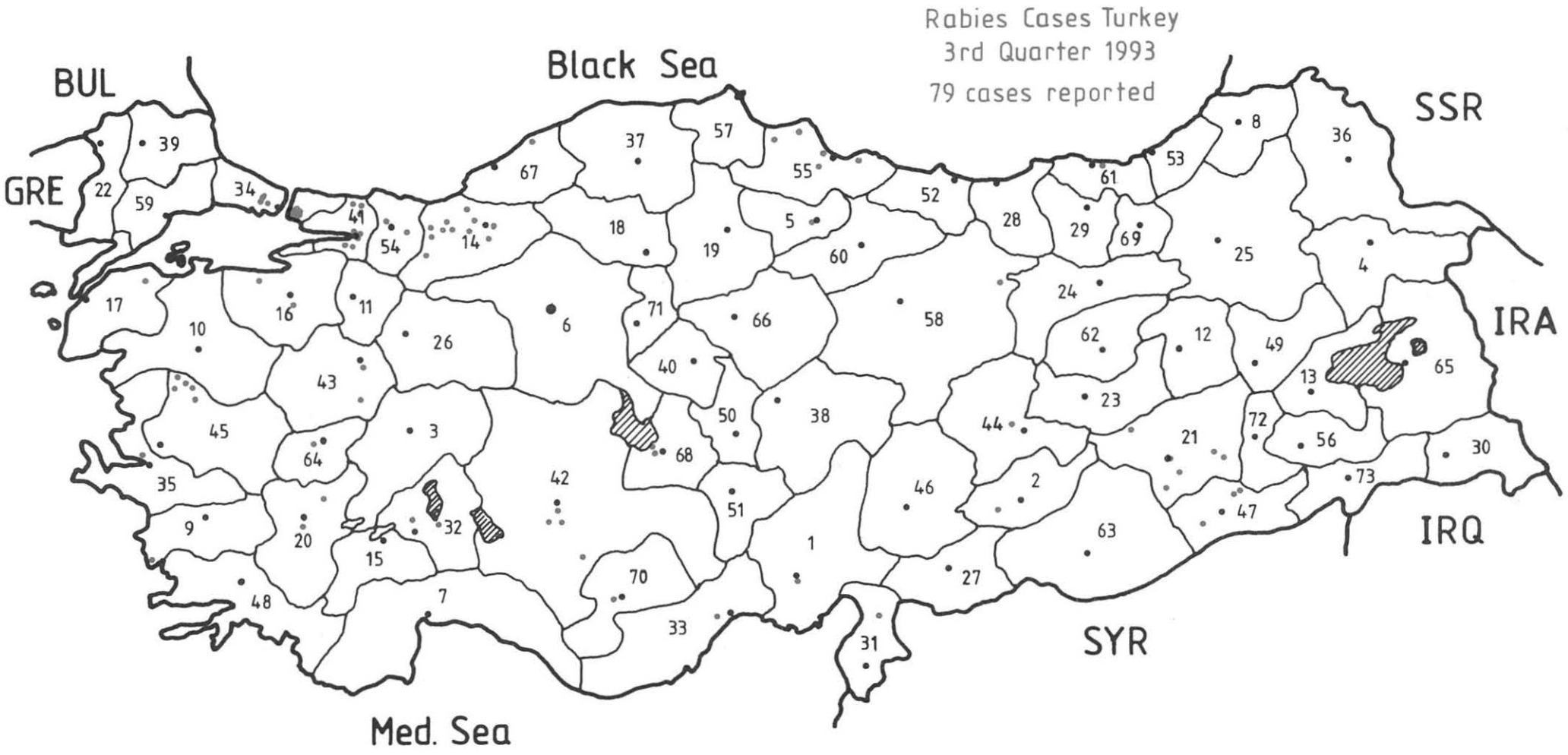


Rabies Cases
Russian Federation
(European part)

3rd Quarter 1993
91 cases reported

WHO Coll. Centre
Tuebingen / DEU



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Rabies Cases Europe
3rd Quarter 1993

2123 cases reported

8 bat rabies cases included

ICE (rabies free)

NOR (mainland rabies free)

FIN (rabies free)

(40) EST

SWE (rabies free)

LVA (63)

RUS (91)

DEN (0)

LTU (26)

RUS

BYE (19)

IRE (rabies free)

UNK (rabies free)

NET (5)

POL (693)

UKR (no data)

DEU (157) (2)

BEL (0)

(0)

(107) CZH

SVK (109)

MLD (no data)

FRA (54)

AUT (199)

HUN (220)

(55) SWI (1)

(104) SVN

CRO (46)

ROM (17)

ITA (19)

YUG (17)

BUL (no data)

POR (rabies free)

SPA (0)

ALB (no data)

TUR (79)

GRE (rabies free)

0 50 100 km

(rabies free) = no indigenous case reported for at least two years