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 2000**, subsequently referred to as *"This Quarter"*.

In SECTION 2 a **summary of the rabies situation of the third quarter 2000** is given.

SECTION 3 (3.1-3.38) reflects the **situation for individual countries**. Unfortunately, not all countries report regularly yet. However, their contribution is expected.

In the **Miscellaneous** SECTION (4) under 4.1 summaries of 6 human case investigations in the USA and Canada are described.

The **rabies case data** are tabulated for the **Third Quarter 2000** in SECTION 5. The arrangement of countries follows practical considerations, not alphabetical ones.

SECTION 6 lists the **official contributors** to the BULLETIN.

The **geographical distribution** of rabies cases in Europe of the **Third Quarter 2000** is shown on maps of the Russian Federation, Turkey and Europe in the ANNEX.

2. SUMMARY OF RABIES IN EUROPE

During *"This Quarter"*, **1662 rabies cases** were reported **in Europe**. Of these 1170 were in wild animals (70.4%) and 488 in domestic animals. There were 4 human cases.

Of the **1170 cases in wild animals**, 921 (55.4% of total) were red foxes, 2 wolves, 139 raccoon dogs, 25 badgers, 3 stone martens, 37 pine martens, 4 polecats, 1 raccoon, 9 roe deer, 2 moose, 1 wild boar, 17 bats, 1 beaver, 1 dormouse, 2 hamster, 1 black rat, 1 house mouse, 3 unspecified animals.

Of the **488 domestic animals**, 132 were dogs, 116 cats, 9 horses, 3 pigs, 222 bovines, 5 sheep, 1 other domesticated carnivore.

The **4 human cases** were reported in the Russian Federation.

The **17 bat rabies cases** occurred in Denmark (3), Germany (6), France (1), The Netherlands (3), Poland (3) and Spain (1). The 1 bat in Spain was identified as *Eptesicus serotinus*.

Because of the distinct epidemiological features of bat rabies, the cases are marked in a different colour in the map of the ANNEX.

The **dog mediated rabies** is only found in an obvious pattern in Turkey. Of 45 cases during *"This Quarter"*, all of them occurred in domestic animals (39 dogs, 5 bovines, 1 sheep). However, certain areas in the south of the European part of the Russian Federation indicate dog-medicated rabies or the mixed type of dog- and fox-mediated rabies.

The majority of cases in Europe derived as usual from **fox-mediated rabies.** While the total during *"This Quarter"*, increased by 107 cases compared to the previous quarter (by 528 compared to the third quarter 1999 -corrected figure), there were alone 4 countries with fox-mediated rabies (Croatia, Germany, Lithuania and Latvia) recording an increase of 197 cases). Turkey fortunately, as dog-mediated rabies country, recorded a decrease from 95 cases in the previous quarter to 45 during *"This Quarter"*.

Rabies-free countries in Europe during *"This Quarter"* were: Albania, Finland, Greece, Iceland, Ireland, Italy, Macedonia, Norway, Portugal, Sweden, Switzerland, the United Kingdom of Britain and Northern Ireland.

There were **no cases** in Austria, Belgium and Luxembourg, but the last indigenously acquired case (terrestrial or bat) was less than two years ago.

3. RABIES IN INDIVIDUAL COUNTRIES

3.1 Albania ALB

by Kristaq Berxholi

The country remained **rabies-free.**

Surveillance:

27 animals were examined for rabies reveiling negative results: 8 foxes, 1 lynx, 1 dog and 17 bats (4 *Rhinolophus hipposideros*, 2 *Rhinolophus ferrumequinum,* 1 *Pipistrellus pipistrellus,* 1 *Pipistrellus sp.,* 6 *Myotis myotis,* 3 *Myotis blythi*).

3.2 Austria AUT

by Helmut Schnabl

Out of 5314 animals examined for rabies during ***"This Quarter"***, there was no case diagnosed positive.

3.3 Belgium BEL

by L. Hallet

No case of rabies was diagnosed during ***"This Quarter"***.

Surveillance

From 01 January to 30 September 2000 a total of 606 samples was examined with negative results. They were from the following animals: 311 foxes, 201 bovines, 30 small ruminants, 15 cats, 16 dogs, 3 horses, 1 goose, 14 badgers, 5 roe deer, 1 wild boar, 5 stone martens, 1 Norwegian rat, 1 hare, 2 bats.

3.4 Bosnia and Herzegovina BIH

No data.

3.5 Bulgaria BUL

by L. Lavchev

There were 3 reported cases of rabies in the country in animals unspecified.

The cases occurred in the provinces of Pleven and Choumen in the north of the country.

3.6 Belarus BYE

by A.M. Axenov

During ***"This Quarter"***, 84 animal rabies cases were reported in all 6 administrative regions. The following animals were diagnosed rabid: 52 foxes, 2 raccoon dogs, 1 pine marten, 8 dogs, 6 cats, 4 horses, 1 pig, 10 bovines.

3.7 Croatia CRO

by Josip Marković

Of 741 animals investigated for rabies during ***"This Quarter"*** (157 domestic and 584 wild animals) a total of 104 cases (5 in domestic and 99 in wild animals) were diagnosed rabid in 43 municipalities of 16 districts.

There were 75 cases less compared with the third quarter 1999, and 14 cases less than in the previous quarter.

The distribution of animal species involved in rabies was: 96 foxes, 1 badger, 1 other mustelid, 1 wild boar and 3 cats, 1 dog, 1 bovine.

3.8 Czech Republic CZH

by Oldrich Matouch

During ***"This Quarter"***, a total of 1616 samples (1249 wild and 367 domestic animals) were examined for rabies in the Czech Republic. Rabies was diagnosed in 32 cases, 8 cases less than in the third quarter 1999 and 8 cases more than in the previous quarter. 30 cases were registered in foxes, 1 in a marten and 1 in a badger. No rabies case was recorded in domestic animals.

The disease situation has been unfavourably influenced by a new active focus of fox rabies in the district Rychnov nad Kneznou. The reinfection appeared in this area adjacent to the Czech - Poland border after several years being rabies free and resulted in 19 cases in foxes (59.7% of total) registered dur-

ing this quarter. The remaining cases of the country were scattered, in districts of previously active foci.

3.9 Denmark DEN

by Preben Willeberg and Birgit Hendriksen

There were 3 bat rabies cases registered during ***"This Quarter"***.

3.10 Germany, Federal Republic DEU

by Winfried W. Müller and Hartmut Schlüter

During ***"This Quarter"***, 63 animal rabies cases were reported in 7 out of 16 federal states. These were 34 cases more than in the previous quarter, and 48 cases more than in the third quarter 1999.

Cases occurred in previous foci of the states of Nordrhein-Westfalen, Hessen, Bayern and Sachsen.

There were 6 cases of bat rabies scattered in 5 states: Niedersachsen, Nordrhein-Westfalen, Saarland, Berlin, Sachsen.

3.11 Estonia EST

by Matti Nautras

A total of 11 cases was reported during ***"This Quarter"***. There were 3 cases in wild animals (3 foxes) and 8 in domestic animals (2 dogs, 1 cat, 5 bovines).

Editors note:

For the months of August and September no data were received.

3.12 Finland FIN

by Nina Sarén

The country remained **rabies-free.**

Surveillance:

A total of 42 animals were examined for rabies by immunofluorescence test on brain tissue during ***"This Quarter"***, all with negative results. Of the animals 9 were foxes, 9 raccoon dogs, 3 badgers, 1 large weasel, 4 mouse weasel, 1 meadow vole, 1 insectivorous bat, 1 squirrel, 1 vole, 2 dogs, 6 cats, 4 bovines.

3.13 France FRA

by Michel F.A. Aubert

There was 1 case of bat rabies reported during ***"This Quarter"*** in the community of Fouesnant, département Finistère, in the very north-west of the country.

Surveillance:

680 samples were examined for rabies during ***"This Quarter"*** with negative results.

3.14 Federal Republic of Yugoslavia FRY

by Živko Davidović

A total of 29 rabies cases (in 25 foxes and 4 cats were registered during ***"This Quarter"*** in the Federal Republic of Yugoslavia.

There was a concentration of cases in the north of the country. There was 1 case in Crna Gora.

3.15 Greece GRE

The country remained **rabies-free.**

3.16 Hungary HUN

by Antal Németh and Zsolt Földi

During ***"This Quarter"***, there were 105 rabies cases in animals. Of these, 82 were foxes (78.1% of total) and 23 domestic animals (3 dogs, 15 cats, 5 bovines).

All cases occurred east of the river Danube.

3.17 Iceland ICE

The country remained **rabies-free.**

3.18 Ireland IRE

The country remained **rabies-free.**

3.19 Italy ITA

by Franco Mutinelli

The country remained **rabies-free.**

Surveillance:

1211 wild animals (1089 foxes included) and 73 domestic animals from Trentino Alto Adige, Veneto and Friuli Venezia Giulia Regions (north-eastern Italy) were tested for rabies with negative results.

One bat was diagnosed negative. The poor condition of the sample prevented an identification of the species.

3.20 Lithuania LTU

by K. Lukauskas and A. Dranseika

During ***"This Quarter"***, there were 240 cases of rabies. Of the total 91 cases (37.9%) were in domestic animals (66 bovines, 7 dogs, 15 cats, 2 pigs and 1 horse) and 149 in wild animals (66 foxes, 58 raccoon dogs, 13 pine martens, 7 badgers, 3 polecats and 2 roe deer).

Of 40 districts the most affected ones were Lazdijai, Klaipėda, Alytus, Plungę, Pasvalys, Radviliškis, Šilutė.

More than 19,000 dogs, more than 3,000 cats and more than 5,000 bovines were vaccinated against rabies during ***"This Quarter"***.

No human rabies case was registered in the country.

3.21 Luxembourg LUX

by Arthur Besch

During ***"This Quarter"***, there were no rabies cases in domestic and wild animals.

End of September the second annual oral vaccination of foxes against rabies was carried out. 48,000 RABORAL vaccine baits were distributed by helicopter throughout the country.

Surveillance:

8 animals (5 foxes, 2 martens, 1 roe deer) were examined for rabies with negative results.

3.22 Latvia LVA

by J. Rimeicāns and E. Jēgers

186 rabies cases were registered during ***"This Quarter"*** in all 26 administrative districts of the country. 152 cases were diagnosed in wild animals (81.7% of total). 96 of the cases in wild animals were foxes, 35 raccoon dogs, 10 badgers, 8 pine martens, 2 moose and 1 beaver. Of 34 rabies cases in domestic animals 12 were dogs, 11 bovines, 10 cats, and 1 horse. The most affected districts were Liepajas with 22 cases, Talsu with 20 cases, Ventspils, Kuldigas and Riga with 14 cases each.

3.23 Moldova MLD

by Vasile Bahau

Out of 16 animal samples examined for rabies during ***"This Quarter"*** (4 dogs, 5 cats, 4 bovines, 1 sheep, 1 wild boar, 1 rodent) 3 were diagnosed positive. These were 2 bovines in the district of Orhei and 1 bovine in Edinets.

3.24 Netherlands NET

by Gerard Visser

During ***"This Quarter"***, 52 animals (2 cats and 50 bats) were investigated for rabies. Three bats were rabid.

The cases occurred in the provinces Gelderland, Utrecht and Zuid-Holland.

3.25 Norway NOR

by Eivind Liven

The country remained **rabies-free.**

3.26 Poland POL

by Andrzej Komorowski

A total of 422 animal rabies cases was registered in Poland during ***"This Quarter"***, 11 cases more than in the previous quarter and 155 cases more than the third quarter 1999.

3.27 Portugal POR

The country remained **rabies-free.**

3.28 Romania ROM

by Mircea Chertes

A total of 11 rabies cases was reported in Romania during ***"This Quarter"***. There were 6 cases in foxes, 1 in a dog, 3 in cats and 1 in a bovine.

9 cases occurred in the northern half of the country, 2 in the southern half.

3.29 Russia RUS European part only

by V.A.Vedernikov, V.A.Sedov, I.V. Baldina, A.A.Shabeykin, A.M.Gulyukin B.L.Cherkasskiy, V.J. Ladnyi, V.V.Seliverstov, V.N. Abramov, and S.A. Kolomizev

During ***"This Quarter"***, 246 rabies cases in animals were reported.

Of the total number of cases 136 were in domestic animals - 41 dogs, 29 cats, 60 bovines, 3 horses, 3 sheep. Of 110 wild animals rabies was diagnosed in 101 foxes, 2 raccoon dogs, 1 pine marten, 1 rat, 1 badger, 2 wolves, 2 hamsters.

Most affected were the Kursk Region with 34 cases, Voronez Region with 22 cases, Kaliningrad Region with 21 cases, Stavropol Territory with 17 cases, Oryol Region with 16 cases, Belgorod Region with 15 cases.

There were 4 human cases reported - in the Moscow Region, in the Kursk Region, in the Krasnodar Territory and in the Stavropol Territory.

3.30 Spain SPA

by Carlos Abellan Garcia

During ***"This Quarter"***, the mainland and islands of Spain remained rabies-free in terrestrial animals.

There was 1 bat rabies case in Sevilla, specified as *Eptesicus serotinus.*

No case occurred during ***"This Quarter"*** in the Spanish territory of North Africa.

3.31 Slovak Republic SVK

by Dušan Magic

A total of 46 rabies cases in animals was reported in the Slovak Republic during ***"This Quarter"***. Of these were 35 (76.1%) in wild animals (33 foxes, 1 pine marten and 1 dormouse) and 11 (23.9%) in domestic animals (2 dogs, 9 cats).

3.32 Slovenia SVN

by Zoran Kovač

There were 20 rabies cases during ***"This Quarter"***. 19 cases of the total were in foxes, 1 in a badger.

The cases were distributed in the south-east of the country.

3.33 Sweden SWE

The country remained **rabies-free.**

3.34 Switzerland SWI

by Uli Müller

The country remained **rabies-free.**

Surveillance:

During ***"This Quarter"***, 45 animals were examined for rabies with negative results: 25 foxes, 1 badger, 2 other mustelids, 1 deer, 8 bats, 4 dogs, 3 cats, 1 other domestic animal. The 8 bats (in brackets the community where the sample was taken) were specified as *Pipistrellus pipistrellus* (Domat/Ems), *Myotis mystacinus* (Nyon), *Eptesicus nilssoni* (Tramelan), *Eptesicus nilssoni* (Sonvilier), *Pipistrellus pipistrellus* (Genève), *Pipistrellus nathusii* (Marin-Epagnier), *Pipistrellus pipistrellus* (Adligenswil), *Pipistrellus kuhli* (Basel).

3.35 Turkey TUR

by Hüseyin Sungur

During ***"This Quarter"***, 45 rabies cases in animals were reported in Turkey. The disease occurred in 39 dogs, 5 bovines, 1 sheep.

The most affected province (Il) was Istanbul with 14 cases. All other affected prov-

inces recorded less than 6 cases.

3.36 Macedonia TYM

The country remained **rabies-free**.

3.37 Ukraine UKR

No data.

3.38 United Kingdom UNK

by Fred Landeg

The country remained **rabies-free.**

4. MISCELLANEOUS ARTICLES

4.1 Human Rabies Cases - U.S.A. and Canada in the Year 2000

Foreword

The editors of the RABIES BULLETIN EUROPE present 6 human rabies cases of the USA (California, New York, Georgia, Minnesota, and Wisconsin) and Canada (Québec) to demonstrate the diversity of clinical pictures of the disease, the diagnostic used, the course of the disease and the case investigation.

California

On September 15, a 49-year-old man visited a neurologist with 2 days of increasing right arm pain and paresthesias. The neurologist diagnosed atypical neuropathy (Table 1). The symptoms increased and were accompanied by hand spasms and sweating on the right side of the face and trunk. The patient was discharged twice from an emergency department but symptoms worsened. After developing dysphagia, hypersalivation, agitation, and generalized muscle twitching, the patient was admitted to a local hospital on September 16. Vital signs and blood tests were normal, but within hours he became confused. The consulting neurologist suspected rabies. Rabies immune globulin, vaccine and acyclovir were administered. On September 17, the patient was placed on mechanical ventilation and rabies tests returned positive. Renal failure developed and the patient died on September 20. The patient did not report contact with a bat, although his wife reported that in June or July a bat had flown into their house and the patient had removed it.

New York

On September 22, a 54-year-old man who had resided in Ghana arrived in the United States, and on September 26, reported discomfort in his right lower back. During the next few days, the pain intensified and alternated with abdominal discomfort. He developed restlessness and anxiety. On September 30, he was admitted to a local hospital for suspected bowel obstruction. On examination, the patient appeared anxious and had right flank tenderness, diaphoresis, spontaneous ejaculation, soft tissue swelling of the right lumbar area, vomiting, and a temperature of 99.3 F (37.4 C). Other symptoms appeared within hours, including dysphagia, dizziness, shortness of breath, and paranoia. The patient became delirious, with frothing and agitation. On October 1, the patient had a cardiac arrest, was resuscitated, and placed on mechanical ventilation. Rabies tests were positive on October 3. After a gradual decrease in respiration, heart rate, and blood pressure, the patient died on October 9. History from the patient's employer in Ghana revealed that the patient had been bitten in Ghana on his thumb and leg by his unvaccinated puppy in May.

TABLE 1. Presenting diagnoses, positive antemortem diagnostic tests, radiologic and cerebral spinal fluid studies, virus variants, and number of persons receiving rabies postexposure prophylaxis, by state - California, Georgia, Minnesota, New York, and Wisconsin, 2000

State	Presenting diagnosis	Positive antemortem diagnostic tests	Radiologic and cerebral spinal fluid studies	Virus variant	Postexposure prophylaxis*
California	Atypical neuropathy	1. Direct fluorescent antibody test: cornea and skin biopsy 2. Reverse transcriptase-polymerase chain reaction: saliva	1. Head computed tomography scan: normal 2. Cerebral spinal fluid: increased glucose	*Tadarida brasiliensis* (Mexican free-tailed bat)	37 (89%)
Georgia	Encephalitis	None a)	1. Head cerebral spinal fluid: mild sinusitus 2. Cerebral spinal fluid: normal	*Tadarida brasiliensis* (Mexican free-tailed bat)	71 (99%)
Minnesota	Carpal tunnel syndrome	1. Direct fluorescent antibody test: skin biopsy and saliva 2. Reverse transcriptase-polymerase chain reaction: skin biopsy and saliva	1. Head computed tomography scan: normal 2. Magnetic resonance imaging: increased signal in cervical and thoracic cord to the sixth thoracic vertebrae 3. Cerebral spinal fluid: increased cells, glucose, and protein	*Lasionycteris noctivagans* (Silver-haired bat) and *Pipistrellus subflavus* (Eastern pipistrelle bat)	20 (100%)
New York	Bowel obstruction	1. Direct fluorescent antibody test: skin biopsy 2. Reverse transcriptase-polymerase chain reaction: saliva	1. Head computed tomography scan: mild cerebral cortical and cerebellar atrophy	Dog, African	24 (96%)
Wisconsin	Myocardial ischemia	None a) b)	1. Head computed tomography scan: normal 2. Cerebral spinal fluid: normal	*Lasionycteris noctivagans* (Silver-haired bat) and *Pipistrellus subflavus* (Eastern pipistrelle bat)	27 (67%)

* Number of persons who received rabies postexposure prophylaxis for possible exposure to the patients' saliva and percentage who were health-care workers.

a) Diagnosis made on postmortem examination and confirmed with direct fluorescent antibody test of brain tissue.

b) Rapid fluorescent focus inhibition test was negative.

Georgia

On October 3, a 26-year-old man developed intractable vomiting and hematemesis. At a local hospital, he was treated with antiemetic suppositories; that evening he became disoriented, combative, and had difficulty breathing. On October 5, he became hypotensive and hypoxic and was transferred to a referral hospital for ventilatory support. Examination revealed a temperature of 104 F (40 C), anisocoria, copious oral secretions, scattered bilateral pulmonary crackles, and a white blood cell count (WBC) of 46.6 cells x 10^9/L (normal: 5-10 x 10^9/L); a chest radiograph revealed bilateral diffuse alveolar densities. Broad spectrum antibiotics, including acyclovir, were initiated. On October 9, the patient developed cardiac arrhythmia, hypotension, and became combative, necessitating sedative and paralytic agent therapies. He developed respiratory and renal failure and died on October 10. Since July, the patient had been renting a room on the upper floor of an old house. He had reported to co-workers that bats from the attic had entered his living quarters and landed on him while he slept. Investigation of the house occupied by the patient since July revealed a colony of approximately 200 Mexican free-tailed bats in the attic and openings between the attic and the patient`s bedroom, bathroom, closet, and kitchen.

Minnesota

On October 14, a 47-year-old man visited a local clinic with 6 days of worsening right arm pain and parasthesias. Two days later he developed decreased right finger movement. Nerve conduction studies were consistent with carpal tunnel syndrome. On October 19, while travelling in North Dakota, the patient was admitted to a North Dakota hospital with a temperature of 103 F (39.4 C), flaccid paralysis and sensory loss in the right upper extremity, sensory loss in the mid-thoracic area, hypoesthesia and hyporeflexia in the left upper extremity, and anisocoria. Laboratory findings were normal except a WBC count of 13.8 x 10^9/L. The patient was placed on broad spectrum antibiotics. On October 20, the patient developed acute respiratory failure and was intubated. Magnetic resonance imaging was consistent with myelitis and ganciclovir was added to antibiotic coverage. He died on October 25. Three days earlier, a friend told the family that during August 11-19, the patient had been awakened by a bat on his right hand. He killed the bat and was bitten in the process. The patient did not seek medical care. Investigation found in the patient's house multiple portals of entry for bats, openings between the attic and living areas, and extensive deposits of guano in the attic and living area.

Wisconsin

On October 14, a 69-year-old man with a 2-day history of chest discomfort and numbness, tingling, and tremors of the left arm was admitted to a local hospital for cardiac evaluation. On October 16, the patient had onset of progressive dysphagia, diaphoresis, delirium, and myoclonus. The patient was treated with intravenous antibiotics for possible sepsis and acyclovir for suspected herpes encephalitis. He developed renal insufficiency requiring hemodialysis and respiratory failure necessitating mechanical ventilation. A serum rapid fluorescent focus inhibition test for rabies antibodies was negative on October 18. The patient died on November 1, and postmortem examination of the brain revealed Negri bodies. Subsequent testing confirmed a diagnosis of rabies. The patient had told a friend that two or three times a year he had removed bats from his house with his bare hands; several other residences used by the patient also had potential portals for the entry of bats. He did not mention being bitten by an animal but had asked a friend a week before admission if rabies could be acquired from an insect bite.

MMWR's Editorial Note:

These five cases of human rabies are the first diagnosed in the United States since December 1998, and underscore that rabies should be considered in any patient with progressive encephalitis. The initial presentations

of rabies can be diverse and a history of animal contact is rarely obtained. Because the immune response to rabies may not occur until late in the disease, if rabies is suspected, an antemortem examination should include a nuchal skin biopsy, saliva, and cerebral spinal fluid or a postmortem examination of central nervous system tissue (1).

In the United States since 1990, infection with indigenous rabies virus variants associated with insectivorous bats and infection with foreign canine rabies virus variants have accounted for 30 of the 32 human cases. Although 24 (74%) of the 32 cases since 1990 have been attributed to bat-associated variants of the virus, a history of a bite was established in only two cases. Conctact with bats occurred in approximately half of the other cases. These cases represent various bat-contact histories: a bat bite, direct contact with bats with multiple opportunities to be bitten, and possible direct contact with a bat. Canine rabies is prevalent in Africa, Asia, and Latin America. Worldwide estimates of human rabies deaths exceed 50,000 cases each year, and >95% of reported cases occur in regions where canine rabies is endemic (2).

Although rabies usually is transmitted by a bite, persons may minimize the medical implications of a bat bite. Unlike bites from larger animals, the trauma of a bat bite is unlikely to warrant seeking medical care. Unless the potential for rabies exposure is known to the patient, rabies postexposure prophylaxis (PEP) will not be received. Although bat rabies virus variants can be transmitted secondarily from terrestrial mammals, the lack of other animal-bite histories and the rarity of bat rabies virus variants found in terrestrial mammals suggest that this means of transmission is rare (3).

Persons who are bitten or scratched by any animal should wash wounds thoroughly and seek immediate medical attention to evaluate the need for PEP. In all cases where bat-human contact has occurred or is suspected, the bat should be collected and tested for rabies. If the bat is unavailable, the need for PEP should be assessed by public health officials. PEP should be considered after direct contact between a human and a bat, unless the exposed person can be certain a bite, scratch, or mucous membrane exposure did not occur. PEP may be considered for persons who were in the same room as a bat and who might be unaware that a bite or direct contact had occurred (e.g., when a sleeping person wakes to find a bat in the room or an adult witnesses a bat in the room with an unattended child., mentally disabled person, or intoxicated person). PEP is not warranted when direct contact between a human and a bat did not occur. Seeing a bat or being in the vicinity of bats does not constitute an exposure (4).

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Québec

On September 22, 2000, a 9-year-old boy awoke with a fever and complained of pain in his upper left arm. The pain persisted, and he developed insomnia and tremors in his left arm and hand. He was admitted to a local hospital on September 27. That evening, he had mild dysphagia, pruritus of his upper chest and back, and a transient macular rash. On September 28, he developed tremors and myoclonic jerks in both arms, had become agitated, and had hydrophobia, aerophobia, dysarthria, and visual hallucinations. The next day hypersalivation was observed and the tremors and myoclonus had spread to his lower extremities. He became very anxious, indicated that he was suffocating, and underwent

endotracheal intubation. A diagnosis of rabies was considered and he was transferred to a children's hospital. Laboratory findings were normal except a mildly elevated cerebral spinal fluid protein. An electroencephalogram indicated no epileptiform activity. Head magnetic resonance imaging was normal. On September 29, the results of the rabies tests were positive, and rabies immune globulin and vaccine were administered to the patient. His neurologic and hemodynamic status deteriorated, and he died on October 6.

A nuchal skin biopsy tested positive by direct fluorescent antibody test. Rabies virus was isolated from the saliva, and saliva, tears, and skin biopsy were positive for rabies by reverse transcriptase-polymerase chain reaction. Molecular analysis of the virus revealed a rabies variant associated with silver-haired (*Lasionycteris noctivagans*) and eastern pipistrelle (*Pipistrellus subflavus*) bats.

During August, the patient visited a zoo and went to a day camp where he observed bats that had been captive for many years. No history of substantial exposure to bats or other animal occurred in these places. On August 28, while the patient and his brother were sleeping in a rural cottage, his parents found a bat in the kitchen. The same evening, the patient's brother went into the bathroom and observed a bat that seemed to have difficulty flying. He alerted his father who removed it from the cottage with his bare hands. Approximately 3 days later, the patient showed his mother a 0.8-inch (2 cm) erythematous lesion with a small central laceration on his upper left arm. No action was taken. After the diagnosis was made, rabies postexposure prophylaxis was offered to the patient's parents and brother. Prophylaxis also was given to 44 health-care providers because of possible percutaneous or mucous membrane exposure to the patient's saliva and to 12 playmates possibly exposed to the patient's saliva. This human death from rabies was the first one reported in Canada since 1985.

(Taken from Morbidity and Mortality Weekly Report [MMWR], Vol. 49, No. 49, 2000, pp. 1111-1116; Centers for Disease Control and Prevention, Atlanta, Georgia 30333, U.S.A.)

RBE's Editor Note

Over the last years relative many human cases in the U.S.A. have been accounted as caused by bats. This is not so in Europe.

Here are some differences and similarities of bat rabies in the U.S.A. and Europe:

1. The types of bat involved in both continents are insectivorous, however, the main carrier and other bats involved are of different species.

2. The virus in the U.S.A. is the Serotype 1 of the Lyssavirus Group, in Europe the Serotype 5 (Genotypes European Bat Lyssavirus 1 (EBL1) and 2 (EBL2).

3. In the U.S.A. the virus is distributed throughout the continent, in Europe predominantly in coastal areas.

4. In the U.S.A. it is reported for some time that sporadic infection of terrestrial animals (and humans) occur. In Europe only recently (1998) the EBL1 virus was identified in Denmark in 3 sheep. However, two humans were reported from the Ukraine (EBL1) and Finland (EBL2) in 1985.

***

TABLE 5.1

EUR EUROPE **3/2000** RABIES CASES 1. 7.00 - 30. 9.00

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 *							0						0		0
BEL BELGIUM *							0						0		0
BIH BOSNA I HERCEGOWIN**							0						0		0
BUL BULGARIA							0	-	-	-	-	3	3		3
BYE BELARUS	8	6	10	4	-	1	29	52	-	1	-	2	55		84
CRO CROATIA	1	3	1	-	-	-	5	96	1	1	-	1	99		104
CZH CZECH REPUBLIC							0	30	1	1	-	-	32		32
DEN DENMARK							0	-	-	-	-	3	3		3
DEU FED.REP.OF GERMANY	-	-	1	-	1	-	2	46	-	2	6	7	61		63
EST ESTONIA 1)	2	1	5	-	-	-	8	3	-	-	-	-	3		11
FIN FINLAND *							0						0		0
FRA FRANCE							0	-	-	-	-	1	1		1
FRY FED.REP.OF YUGOSLA	-	4	-	-	-	-	4	25	-	-	-	-	25		29
GRE GREECE *							0						0		0
HUN HUNGARY	3	15	5	-	-	-	23	82	-	-	-	-	82		105
ICE ICELAND *							0						0		0
IRE IRELAND *							0						0		0
ITA ITALY *							0						0		0
LTU LITHUANIA	7	15	66	1	-	2	91	66	7	16	2	58	149		240
LUX LUXEMBOURG *							0						0		0
LVA LATVIA	12	10	11	1	-	-	34	96	10	8	2	36	152		186
MLD MOLDOVA	-	-	3	-	-	-	3						0		3
NET NETHERLANDS							0	-	-	-	-	3	3		3
NOR NORWAY *							0						0		0
POL POLAND	16	21	54	-	-	1	92	266	4	13	1	46	330		422
POR PORTUGAL *							0						0		0
ROM ROMANIA	1	3	1	-	-	-	5	6	-	-	-	-	6		11
RUS RUSSIAN FEDERATION	41	29	60	3	3	-	136	101	1	1	-	7	110	4	250
SPA SPAIN							0	-	-	-	-	1	1		1
SVK SLOVAK REPUBLIC	2	9	-	-	-	-	11	33	-	1	-	1	35		46
SVN SLOVENIA							0	19	1	-	-	-	20		20
SWE SWEDEN *							0						0		0
SWI SWITZERLAND + LIEC*							0						0		0
TUR TURKEY	39	-	5	-	1	-	45						0		45
TYM MAKEDONIJA *							0						0		0
UKR UKRAINE **							0						0		0
UNK UNITED KINGDOM *							0						0		0
TOTAL	132	116	222	9	5	4	488	921	25	44	11	169	1170	4	1662
PER CENT	7.9	7.0	13.4	0.5	0.3	0.2	29.4	55.4	1.5	2.6	0.7	10.2	70.4	0.2	100.0

* NO CASES ** NO DATA 1) NO DATA FOR AUGUST AND SEPTEMBER

TABLE 5.2

EUR EUROPE **1-3/2000** RABIES CASES 1. 1.00 - 30. 9.00

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							0	2	-	-	-	-	2		2
BEL BELGIUM *							0						0		0
BIH BOSNA I HERCEGOWI 1)							0	9	-	-	-	-	9		9
BUL BULGARIA							0	-	-	-	-	15	15		15
BYE BELARUS	26	21	14	4	-	1	66	122	-	2	-	6	130		196
CRO CROATIA	7	11	1	-	11	-	30	617	1	8	2	16	644		674
CZH CZECH REPUBLIC	1	-	-	-	-	-	1	90	4	1	3	-	98		99
DEN DENMARK							0	-	-	-	-	3	3		3
DEU FED.REP.OF GERMANY	-	2	3	-	3	-	8	113	1	2	8	9	133		141
EST ESTONIA 2)	9	3	10	-	-	-	22	36	2	-	-	11	49		71
FIN FINLAND *							0						0		0
FRA FRANCE							0	-	-	-	-	3	3		3
FRY FED.REP.OF YUGOSLA	8	9	2	2	1	-	22	97	-	-	-	2	99		121
GRE GREECE *							0						0		0
HUN HUNGARY	17	45	18	4	-	-	84	295	-	1	-	1	297		381
ICE ICELAND *							0						0		0
IRE IRELAND *							0						0		0
ITA ITALY *							0						0		0
LTU LITHUANIA	28	40	95	1	-	2	166	230	10	33	2	153	428	1	595
LUX LUXEMBOURG *							0						0		0
LVA LATVIA	39	29	16	2	-	-	86	185	12	14	4	92	307		393
MLD MOLDOVA	2	-	6	-	-	-	8	5	-	-	-	-	5		13
NET NETHERLANDS							0	-	-	-	-	3	3		3
NOR NORWAY *							0						0		0
POL POLAND	37	61	81	-	-	1	180	938	10	31	7	133	1119		1299
POR PORTUGAL *							0						0		0
ROM ROMANIA	11	7	5	-	1	2	26	23	-	2	-	1	26	1	53
RUS RUSSIAN FEDERATION	153	109	142	6	18	16	444	293	1	4	-	19	317	7	768
SPA SPAIN 3)	1	-	-	-	-	-	1	-	-	-	-	5	5		6
SVK SLOVAK REPUBLIC	16	30	1	-	1	-	48	213	1	5	-	4	223		271
SVN SLOVENIA	2	-	-	-	-	-	2	57	1	-	-	-	58		60
SWE SWEDEN *							0						0		0
SWI SWITZERLAND + LIEC*							0						0		0
TUR TURKEY	218	-	20	-	5	2	245	6	-	1	-	2	9		254
TYM MAKEDONIJA *							0						0		0
UKR UKRAINE **							0						0		0
UNK UNITED KINGDOM *							0						0		0
TOTAL	575	367	414	19	40	24	1439	3331	43	104	26	478	3982	9	5430
PER CENT	10.6	6.8	7.6	0.3	0.7	0.4	26.5	61.3	0.8	1.9	0.5	8.8	73.3	0.2	100.0

* NO CASES ** NO DATA 1) DATA FOR 1ST QUARTER ONLY 2) NO DATA FOR AUGUST AND SEPTEMBER 3) DOG IN NORTH AFRICA

TABLE 5.3

EUR E U R O P E **3/2000** R A B I E S C A S E S 'OTHER ANIMAL SPECIES' 1. 7.00 - 30. 9.00

LOCATION CODE NAME	OTH.DOM.ANIM.		OTHER WILD ANIMALS										UNSPEC	TOTAL
	OTH.DOM CARNIVO	PIG	WOLF	RACCOON DOG	RACCOON	WILD BOAR	INSECT BAT	BEAVER	DORMOUSE	HAMSTER	BLACK RAT	HOUSE MOUSE		
BUL BULGARIA	-	-	-	-	-	-	-	-	-	-	-	-	3	3
BYE BELARUS	-	1	-	2	-	-	-	-	-	-	-	-	-	3
CRO CROATIA	-	-	-	-	-	1	-	-	-	-	-	-	-	1
DEN DENMARK	-	-	-	-	-	-	3	-	-	-	-	-	-	3
DEU FED.REP.OF GERMANY	-	-	-	-	1	-	6	-	-	-	-	-	-	7
FRA FRANCE	-	-	-	-	-	-	1	-	-	-	-	-	-	1
LTU LITHUANIA	-	2	-	58	-	-	-	-	-	-	-	-	-	60
LVA LATVIA	-	-	-	35	-	-	-	1	-	-	-	-	-	36
NET NETHERLANDS	-	-	-	-	-	-	3	-	-	-	-	-	-	3
POL POLAND	1	-	-	42	-	-	3	-	-	-	-	1	-	47
RUS RUSSIAN FEDERATION	-	-	2	2	-	-	-	-	-	2	1	-	-	7
SPA SPAIN	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SVK SLOVAK REPUBLIC	-	-	-	-	-	-	-	-	1	-	-	-	-	1
TOTAL	1	3	2	139	1	1	17	1	1	2	1	1	3	173
PER CENT	0.6	1.7	1.2	80.3	0.6	0.6	9.8	0.6	0.6	1.2	0.6	0.6	1.7	100.0

RABIES CASES 1. 7.00 - 30. 9.00

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		
BUL BULGARIA															
15 PLEVEN							0	-	-	-	-	2	2		2
27 CHOUMEN							0	-	-	-	-	1	1		1
TOTAL	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
ROM ROMANIA															
05 BIHOR	-	1	-	-	-	-	1						0		1
06 BISTRITA-NASAUD	1	-	-	-	-	-	1						0		1
21 HARGHITA							0	3	-	-	-	-	3		3
27 MURES							0	1	-	-	-	-	1		1
28 NEAMT	-	1	-	-	-	-	1						0		1
29 OLT							0	1	-	-	-	-	1		1
31 SATU-MARE	-	1	-	-	-	-	1						0		1
34 SUCEAVA							0	1	-	-	-	-	1		1
37 TULCEA	-	-	1	-	-	-	1						0		1
TOTAL	1	3	1	0	0	0	5	6	0	0	0	0	6	0	11
PER CENT	9.1	27.3	9.1	0.0	0.0	0.0	45.5	54.5	0.0	0.0	0.0	0.0	54.5	0.0	100.0
TUR TURKEY															
07 ANTALYA	1	-	-	-	-	-	1						0		1
10 BALIKESIR	1	-	1	-	-	-	2						0		2
16 BURSA	5	-	-	-	-	-	5						0		5
21 DIYARBAKIR	-	-	1	-	-	-	1						0		1
23 ELAZIG	2	-	-	-	-	-	2						0		2
25 ERZURUM	1	-	-	-	-	-	1						0		1
27 GAZIANTEP	1	-	-	-	-	-	1						0		1
31 HATAY	4	-	-	-	-	-	4						0		4
33 ICEL	1	-	-	-	-	-	1						0		1
34 ISTANBUL	13	-	1	-	-	-	14						0		14
35 IZMIR	4	-	-	-	-	-	4						0		4
45 MANISA	1	-	-	-	1	-	2						0		2
47 MARDIN	1	-	-	-	-	-	1						0		1
55 SAMSUN	1	-	1	-	-	-	2						0		2
60 TOKAT	1	-	-	-	-	-	1						0		1
63 SANLIURFA	1	-	1	-	-	-	2						0		2
68 AKSARAY	1	-	-	-	-	-	1						0		1
TOTAL	39	0	5	0	1	0	45	0	0	0	0	0	0	0	45
PER CENT	86.7	0.0	11.1	0.0	2.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

RABIES CASES 1. 7.00 - 30. 9.00

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															
01 Brest Region	2	2	4	-	-	-	8	12	-	-	-	-	12		20
02 Vitebsk Region	1	2	1	2	-	-	6	8	-	-	-	1	9		15
03 Gomel Region	1	1	-	-	-	-	2	7	-	1	-	1	9		11
04 Grodno Region	3	1	-	-	-	1	5	10	-	-	-	-	10		15
05 Minsk Region	1	-	3	1	-	-	5	7	-	-	-	-	7		12
06 Mogilev Region	-	-	2	1	-	-	3	8	-	-	-	-	8		11
TOTAL	8	6	10	4	0	1	29	52	0	1	0	2	55	0	84
PER CENT	9.5	7.1	11.9	4.8	0.0	1.2	34.5	61.9	0.0	1.2	0.0	2.4	65.5	0.0	100.0
LVA LATVIA															
01 Aizkraukle							0	2	1	1	-	1	5		5
02 Aluksne							0	4	-	-	-	1	5		5
03 Balvi	1	-	-	-	-	-	1	4	-	-	-	-	4		5
04 Bauska	-	-	1	-	-	-	1	4	-	-	-	1	5		6
05 Cesis	-	1	-	-	-	-	1						0		1
06 Daugavpils	-	-	1	1	-	-	2	-	-	1	-	1	2		4
07 Dobele							0	4	-	-	-	2	6		6
08 Gulbene	-	1	-	-	-	-	1	1	2	-	-	-	3		4
09 Jekabpils							0	3	1	-	-	-	4		4
10 Jelgava	-	1	2	-	-	-	3	5	-	-	-	3	8		11
11 Kraslava	-	-	2	-	-	-	2	-	-	-	-	2	2		4
12 Kuldiga	3	-	-	-	-	-	3	5	-	1	1	4	11		14
13 Liepaja	1	-	1	-	-	-	2	8	2	3	-	7	20		22
14 Limbazi							0	2	-	-	-	-	2		2
15 Ludza	-	1	-	-	-	-	1	1	1	-	-	-	2		3
16 Madona	-	1	-	-	-	-	1	2	1	-	-	-	3		4
17 Ogre	-	-	2	-	-	-	2	7	-	-	-	1	8		10
18 Preili							0	2	-	-	-	1	3		3
19 Rezekne							0	1	-	-	-	-	1		1
20 Riga	1	1	-	-	-	-	2	9	1	-	-	2	12		14
21 Saldus	1	-	-	-	-	-	1	4	1	-	-	-	5		6
22 Talsi	4	3	-	-	-	-	7	9	-	-	-	4	13		20
23 Tukums	1	-	2	-	-	-	3	6	-	-	-	3	9		12
24 Valka							0	2	-	-	-	1	3		3
25 Valmiera							0	3	-	-	-	-	3		3
26 Ventspils	-	1	-	-	-	-	1	8	-	2	1	2	13		14
TOTAL	12	10	11	1	0	0	34	96	10	8	2	36	152	0	186
PER CENT	6.5	5.4	5.9	0.5	0.0	0.0	18.3	51.6	5.4	4.3	1.1	19.4	81.7	0.0	100.0

RABIES CASES 1. 7.00 - 30. 9.00

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															
01	Zagrebacka	-	1	-	-	-	-	1	13	-	-	-	-	13		14
02	Krapinsko-Zagorska							0	8	-	-	-	-	8		8
03	Sisacko-Moslavaca							0	1	-	-	-	-	1		1
04	Karlovacka	-	1	-	-	-	-	1	1	-	-	-	-	1		2
05	Varazdinska							0	3	-	-	-	-	3		3
06	Koprivnicko-Krizevack							0	4	-	-	-	-	4		4
07	Bjelovarsko-Bilogorsk	-	1	-	-	-	-	1	9	-	-	-	-	9		10
08	Primorsko-Goranska							0	11	-	1	-	-	12		12
10	Viroviticko-Podravska	1	-	-	-	-	-	1	18	-	-	-	-	18		19
11	Pozesko-Slavonska							0	3	-	-	-	-	3		3
12	Brodsko-Posavska							0	2	-	-	-	-	2		2
13	Zadarska	-	-	1	-	-	-	1	1	-	-	-	-	1		2
14	Osijecko-Baranjska							0	12	-	-	-	-	12		12
16	Vukovarsko-Srijemska							0	7	-	-	-	-	7		7
17	Splitsko-Dalmatinska							0	1	-	-	-	1	2		2
18	Istarska							0	2	1	-	-	-	3		3
TOTAL		1	3	1	0	0	0	5	96	1	1	0	1	99	0	104
PER CENT		1.0	2.9	1.0	0.0	0.0	0.0	4.8	92.3	1.0	1.0	0.0	1.0	95.2	0.0	100.0
HUN	HUNGARY															
01	Budapest	1	-	-	-	-	-	1	1	-	-	-	-	1		2
03	Bacs-Kiskun	1	4	2	-	-	-	7	3	-	-	-	-	3		10
04	Bekes	1	-	-	-	-	-	1	16	-	-	-	-	16		17
05	Borsod-Abauj-Zemplen	-	3	-	-	-	-	3	12	-	-	-	-	12		15
06	Csongrad							0	2	-	-	-	-	2		2
09	Hajdu-Bihar	-	1	-	-	-	-	1	7	-	-	-	-	7		8
10	Heves	-	1	2	-	-	-	3	8	-	-	-	-	8		11
12	Nograd	-	2	-	-	-	-	2	6	-	-	-	-	6		8
13	Pest	-	1	1	-	-	-	2	18	-	-	-	-	18		20
15	Szabolcs-Szatmar-Bere	-	1	-	-	-	-	1	8	-	-	-	-	8		9
16	Jasz-Nagykun-Szolnok	-	2	-	-	-	-	2	1	-	-	-	-	1		3
TOTAL		3	15	5	0	0	0	23	82	0	0	0	0	82	0	105
PER CENT		2.9	14.3	4.8	0.0	0.0	0.0	21.9	78.1	0.0	0.0	0.0	0.0	78.1	0.0	100.0

RABIES CASES 1. 7.00 - 30. 9.00

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		
CZH CZECH REPUBLIC															
01 Central Bohemia							0	9	-	-	-	-	9		9
04 North Bohemia							0	1	1	-	-	-	2		2
05 East Bohemia							0	19	-	1	-	-	20		20
06 South Moravia							0	1	-	-	-	-	1		1
TOTAL	0	0	0	0	0	0	0	30	1	1	0	0	32	0	32
PER CENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.8	3.1	3.1	0.0	0.0	100.0	0.0	100.0
RUS RUSSIAN FEDERATION															
08 Pskov Region							0	3	1	-	-	2	6		6
09 Bryansk Region	-	1	-	-	-	-	1	5	-	-	-	-	5		6
10 Vladimir Region	4	1	-	-	1	-	6	4	-	-	-	1	5		11
12 Twer Region	1	-	-	1	-	-	2	9	-	-	-	-	9		11
15 Moscow Region	2	-	-	-	-	-	2	3	-	-	-	-	3	1	6
16 Oryol Region	4	1	4	1	-	-	10	6	-	-	-	-	6		16
17 Ruazan Region	2	3	-	-	-	-	5	-	-	-	-	2	2		7
18 Smolensk Region	1	-	-	-	-	-	1	1	-	-	-	-	1		2
19 Tula Region	2	-	3	-	-	-	5						0		5
22 Kirov Region	-	-	1	-	-	-	1						0		1
25 Rep. of Chuvashiya							0	1	-	-	-	-	1		1
26 Belgorod Region	3	3	1	-	-	-	7	8	-	-	-	-	8		15
27 Voronezh Region	1	6	7	-	-	-	14	8	-	-	-	-	8		22
28 Kursk Region	-	4	5	-	-	-	9	24	-	-	-	-	24	1	34
29 Lipetsk Region	1	1	8	-	-	-	10	1	-	-	-	-	1		11
30 Tambov Region							0	1	-	-	-	-	1		1
31 Astrakhan Region	1	-	-	-	-	-	1						0		1
32 Volgograd Region	-	1	1	-	-	-	2						0		2
33 Samara Region	2	2	-	-	1	-	5						0		5
34 Penza Region	1	1	1	-	-	-	3	11	-	-	-	-	11		14
35 Saratov Region	1	-	1	-	-	-	2	2	-	-	-	-	2		4
36 Ulyanovsk Region	1	-	-	-	-	-	1						0		1
38 Rep. of Tatarstan	1	2	3	1	-	-	7	2	-	-	-	-	2		9
39 Krasnodar Territory	5	-	2	-	-	-	7						0	1	8
40 Stavropol Territory	4	-	6	-	1	-	11	4	-	-	-	1	5	1	17
41 Rostov Region	1	1	4	-	-	-	6						0		6
42 Orenburg Region	1	-	-	-	-	-	1	1	-	-	-	-	1		2
44 Rep. of Bashkortostan	1	2	2	-	-	-	5						0		5
46 Kaliningrad Region	1	-	11	-	-	-	12	7	-	1	-	1	9		21
TOTAL	41	29	60	3	3	0	136	101	1	1	0	7	110	4	250
PER CENT	16.4	11.6	24.0	1.2	1.2	0.0	54.4	40.4	0.4	0.4	0.0	2.8	44.0	1.6	100.0

R A B I E S C A S E S 1. 7.00 - 30. 9.00

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		
DEN D E N M A R K															
042 FYN							0	-	-	-	-	1	1		1
050 SONDERJYLLAND							0	-	-	-	-	1	1		1
065 RINGKOBING							0	-	-	-	-	1	1		1
TOTAL	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
DEU FED.REP.OF GERMANY															
03 Niedersachsen							0	-	-	-	-	2	2		2
05 Nordrhein-Westfalen							0	6	-	-	2	1	9		9
06 Hessen							0	20	-	1	3	1	25		25
09 Bayern	-	-	1	-	-	-	1	18	-	1	1	-	20		21
10 Saarland							0	-	-	-	-	1	1		1
11 Berlin							0	-	-	-	-	1	1		1
14 Sachsen	-	-	-	-	1	-	1	2	-	-	-	1	3		4
TOTAL	0	0	1	0	1	0	2	46	0	2	6	7	61	0	63
PER CENT	0.0	0.0	1.6	0.0	1.6	0.0	3.2	73.0	0.0	3.2	9.5	11.1	96.8	0.0	100.0
FRA F R A N C E															
29 FINISTERE							0	-	-	-	-	1	1		1
NET N E T H E R L A N D S															
03 GELDERLAND							0	-	-	-	-	1	1		1
09 UTRECHT							0	-	-	-	-	1	1		1
10 ZUID-HOLLAND							0	-	-	-	-	1	1		1
TOTAL	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
SPA S P A I N															
41 SEVILLA							0	-	-	-	-	1	1		1

RABIES CASES 1. 7.00 - 30. 9.00

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 1)															
04	Jogevamaa							0	1	-	-	-	-	1		1
05	Jaervamaa	-	-	3	-	-	-	3	1	-	-	-	-	1		4
09	Paernumaa	-	1	-	-	-	-	1						0		1
13	Valgamaa	1	-	-	-	-	-	1						0		1
15	Vorumaa	1	-	2	-	-	-	3	1	-	-	-	-	1		4
TOTAL		2	1	5	0	0	0	8	3	0	0	0	0	3	0	11
PER CENT		18.2	9.1	45.5	0.0	0.0	0.0	72.7	27.3	0.0	0.0	0.0	0.0	27.3	0.0	100.0
SVK	SLOVAK REPUBLIC															
2	Trnavsky kraj	-	1	-	-	-	-	1	2	-	-	-	-	2		3
3	Trenciansky kraj	-	2	-	-	-	-	2						0		2
4	Nitriansky kraj	-	1	-	-	-	-	1	1	-	-	-	-	1		2
5	Zilinsky kraj							0	5	-	-	-	-	5		5
6	Banskobystricky kraj	1	4	-	-	-	-	5	16	-	1	-	-	17		22
7	Presovsky kraj	1	-	-	-	-	-	1	6	-	-	-	-	6		7
8	Kosicky kraj	-	1	-	-	-	-	1	3	-	-	-	1	4		5
TOTAL		2	9	0	0	0	0	11	33	0	1	0	1	35	0	46
PER CENT		4.3	19.6	0.0	0.0	0.0	0.0	23.9	71.7	0.0	2.2	0.0	2.2	76.1	0.0	100.0
SVN	SLOVENIA															
008	BREZOVICA							0	1	-	-	-	-	1		1
009	BREZICE							0	1	-	-	-	-	1		1
017	CRNOMELJ							0	3	-	-	-	-	3		3
038	ILIRSKA BISTRICA							0	1	-	-	-	-	1		1
039	IVANCNA GORICA							0	2	-	-	-	-	2		2
060	LITIJA							0	4	-	-	-	-	4		4
085	NOVO MESTO							0	1	1	-	-	-	2		2
107	ROGATEC							0	1	-	-	-	-	1		1
109	SEMIC							0	1	-	-	-	-	1		1
130	TREBNJE							0	3	-	-	-	-	3		3
193	ZUZEMBERK							0	1	-	-	-	-	1		1
TOTAL		0	0	0	0	0	0	0	19	1	0	0	0	20	0	20
PER CENT		0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.0	5.0	0.0	0.0	0.0	100.0	0.0	100.0

1) NO DATA FOR AUGUST AND SEPTEMBER

RABIES CASES 1. 7.00 - 30. 9.00

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		
FRY FED.REP.OF YUGOSLAVIA															
01 Beograd							0	5	-	-	-	-	5		5
02 Pancevo							0	2	-	-	-	-	2		2
03 Novi Sad							0	12	-	-	-	-	12		12
04 Zrenjanin	-	2	-	-	-	-	2	1	-	-	-	-	1		3
06 Sombor	-	1	-	-	-	-	1	1	-	-	-	-	1		2
07 Sabac							0	1	-	-	-	-	1		1
09 Jagodina							0	1	-	-	-	-	1		1
11 Kraljevo							0	2	-	-	-	-	2		2
13 Podgorica	-	1	-	-	-	-	1						0		1
TOTAL	0	4	0	0	0	0	4	25	0	0	0	0	25	0	29
PER CENT	0.0	13.8	0.0	0.0	0.0	0.0	13.8	86.2	0.0	0.0	0.0	0.0	86.2	0.0	100.0
MLD M O L D O V A															
01 MOLDOVA	-	-	3	-	-	-	3						0		3
POL P O L A N D															
02 Dolnoslaskie							0	3	-	-	-	-	3		3
04 Kujawsko-Pomorskie	2	3	7	-	-	-	12	25	-	2	-	1	28		40
06 Lubelskie							0	34	1	-	-	1	36		36
10 Lodzkie	1	-	-	-	-	-	1	3	-	-	-	-	3		4
12 Malopolskie	1	1	-	-	-	1	3	18	-	-	-	1	19		22
14 Mazowieckie	5	2	-	-	-	-	7	28	1	-	-	1	30		37
18 Podkarpackie	3	4	-	-	-	-	7	29	2	-	1	-	32		39
20 Podlaskie	-	-	14	-	-	-	14	41	-	2	-	16	59		73
22 Pomorskie	-	1	1	-	-	-	2	1	-	-	-	1	2		4
24 Slaskie							0	5	-	-	-	-	5		5
26 Swietokrzyskie	1	4	1	-	-	-	6	29	-	1	-	-	30		36
28 Warminsko-Mazurskie	3	6	31	-	-	-	40	45	-	8	-	22	75		115
30 Wielkopolskie							0	5	-	-	-	3	8		8
TOTAL	16	21	54	0	0	1	92	266	4	13	1	46	330	0	422
PER CENT	3.8	5.0	12.8	0.0	0.0	0.2	21.8	63.0	0.9	3.1	0.2	10.9	78.2	0.0	100.0

LTU LITHUANIA RABIES CASES 1. 7.00 - 30. 9.00

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		
32	Akmenes	-	1	-	-	-	-	1	-	-	1	-	-	1		2
33	Alytaus	-	1	2	-	-	-	3	8	-	-	-	5	13		16
34	Anyksciu	-	-	1	-	-	-	1	1	-	-	-	-	1		2
36	Birzu	-	-	1	-	-	-	1	-	-	-	-	1	1		2
38	Varenos	-	2	-	-	-	-	2	6	-	-	-	3	9		11
39	Vilkaviskio	-	2	6	1	-	-	9						0		9
41	Vilniaus	-	1	-	-	-	-	1	4	-	-	-	-	4		5
43	Zarasu							0	1	-	-	-	-	1		1
45	Ignalinos							0	1	-	-	-	4	5		5
46	Jonavos	1	1	1	-	-	-	3	1	-	-	-	1	2		5
47	Joniskio	-	-	2	-	-	-	2						0		2
51	Marijampoles	-	-	6	-	-	-	6	2	-	-	-	1	3		9
52	Kauno							0	1	-	-	1	-	2		2
53	Kedainiai	1	-	3	-	-	-	4	-	-	-	-	2	2		6
54	Kelmes	-	-	6	-	-	-	6	-	-	1	-	-	1		7
55	Klaipedos	-	2	2	-	-	-	4	4	1	-	-	2	7		11
56	Kretdingos	2	-	3	-	-	-	5	2	-	1	-	2	5		10
57	Kupiskio	-	-	1	-	-	-	1						0		1
59	Lazdiju							0	6	2	1	-	6	15		15
61	Mazeikiu							0	-	1	-	-	-	1		1
62	Moletu							0	2	-	-	-	1	3		3
65	Pakruojo	-	-	1	-	-	-	1	-	-	1	-	-	1		2
66	Panevezio	1	1	1	-	-	-	3	3	1	-	-	1	5		8
67	Pasvalio	1	-	1	-	-	2	4	3	-	6	-	3	12		16
68	Plunges	-	-	6	-	-	-	6	1	1	1	-	2	5		11
71	Radviliskio	-	1	2	-	-	-	3	-	-	2	1	3	6		9
72	Raseiniai	-	-	2	-	-	-	2	1	-	1	-	1	3		5
73	Rokiskio	-	-	1	-	-	-	1	1	-	-	-	-	1		2
75	Skuodo	-	-	3	-	-	-	3						0		3
77	Taurages	-	2	-	-	-	-	2	4	-	-	-	4	8		10
78	Telsiu							0	-	-	-	-	3	3		3
79	Traku							0	-	-	-	-	1	1		1
81	Ukmerges	-	-	2	-	-	-	2	2	1	-	-	-	3		5
84	Sakiu							0	2	-	-	-	1	3		3
85	Salcininku							0	2	-	-	-	-	2		2
87	Silales	-	-	2	-	-	-	2	1	-	-	-	2	3		5
88	Silutes	-	1	3	-	-	-	4	2	-	-	-	4	6		10
89	Sirvintu	-	-	4	-	-	-	4	2	-	-	-	-	2		6
91	Siauliu	1	-	-	-	-	-	1	-	-	1	-	-	1		2
94	Jurbarko	-	-	4	-	-	-	4	3	-	-	-	5	8		12
TOTAL		7	15	66	1	0	2	91	66	7	16	2	58	149	0	240
PER CENT		2.9	6.3	27.5	0.4	0.0	0.8	37.9	27.5	2.9	6.7	0.8	24.2	62.1	0.0	100.0

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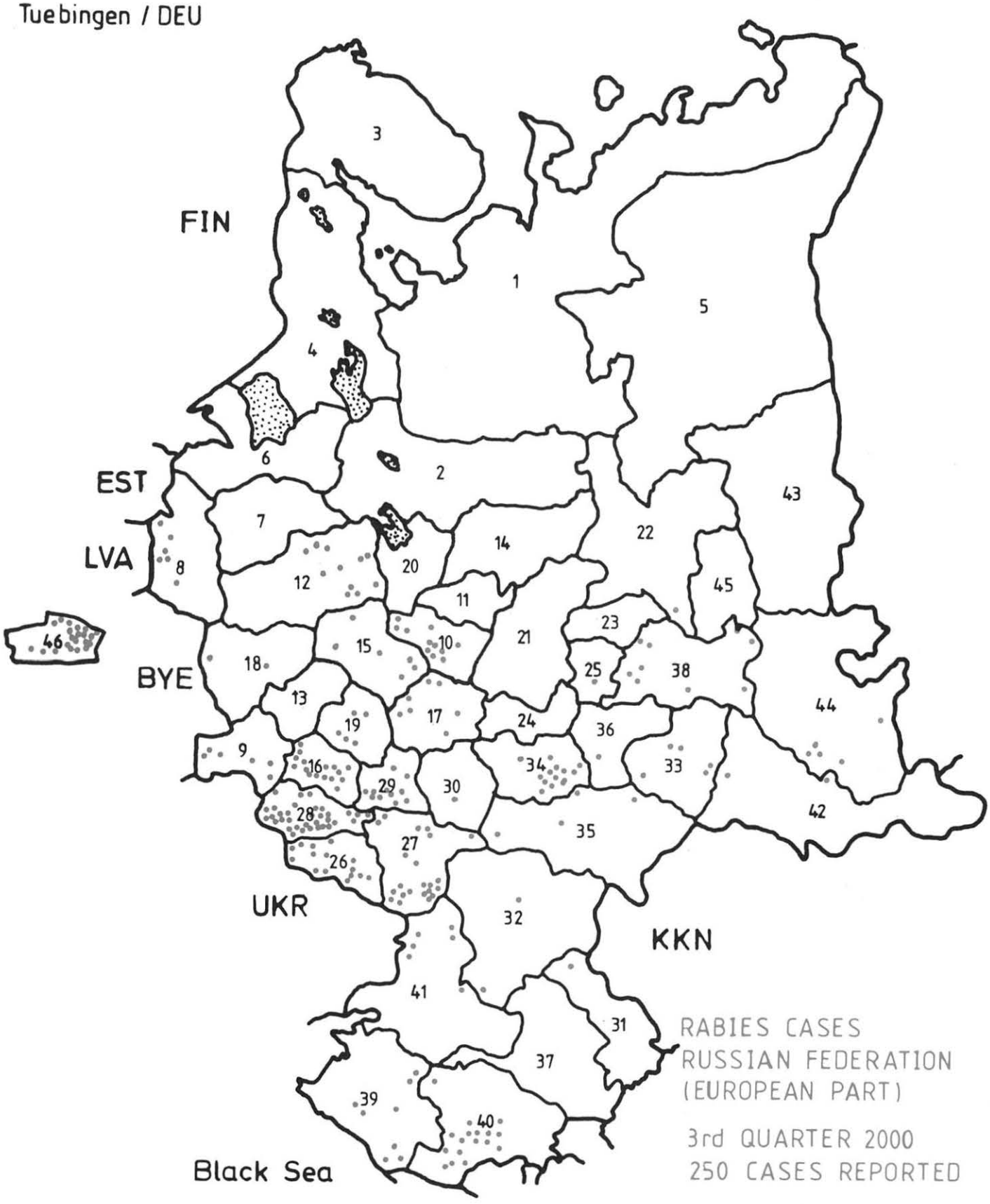
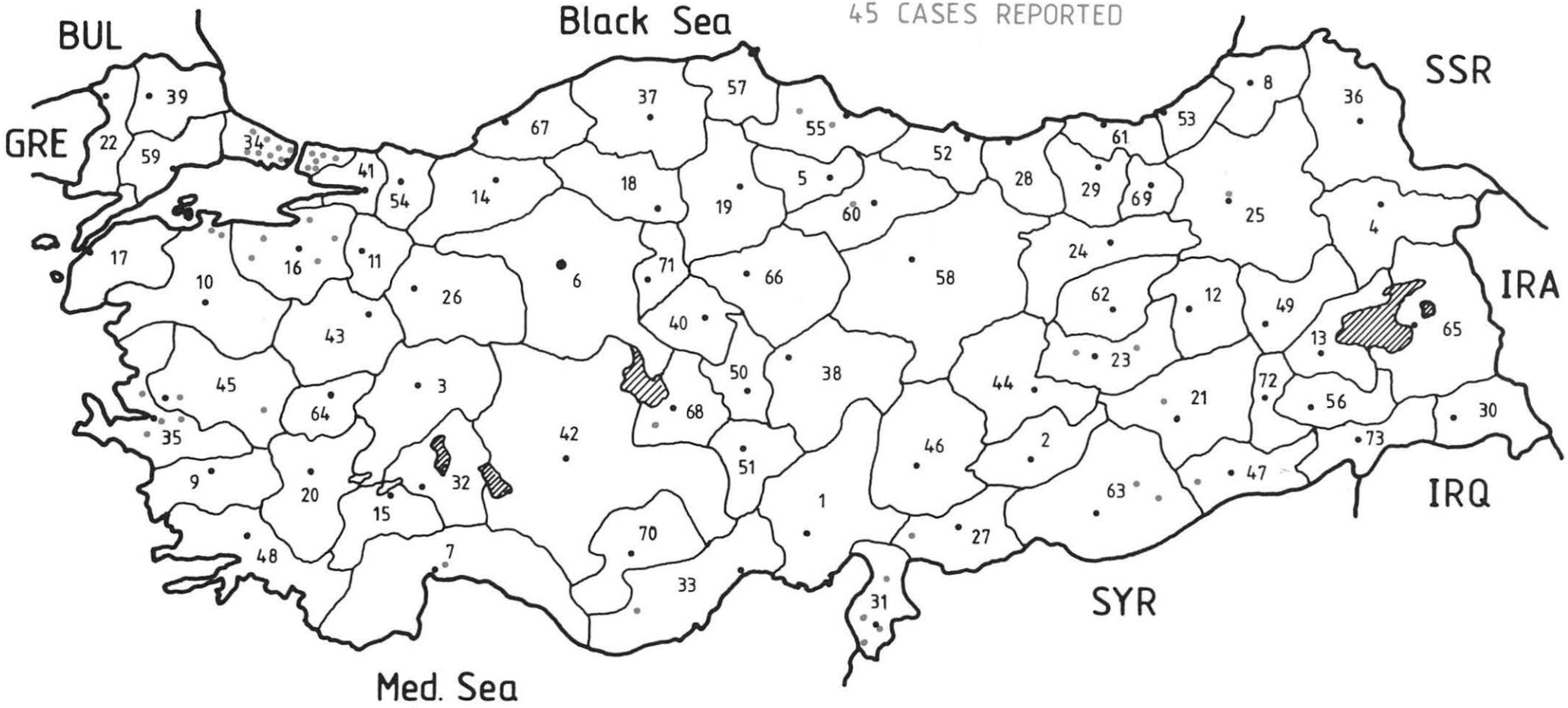


RABIES CASES
RUSSIAN FEDERATION
(EUROPEAN PART)

3rd QUARTER 2000
250 CASES REPORTED

WHO Coll. Centre
Tuebingen / DEU

RABIES CASES TURKEY
3rd QUARTER 2000
45 CASES REPORTED



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RABIES CASES EUROPE
3rd QUARTER 2000

1662 CASES REPORTED
17 BAT RABIES CASES INCLUDED

ICE
(rabies free)

NOR
(rabies free)

SWE
(rabies free)

FIN
(rabies free)

EST
(11)

LVA
(186)

RUS
(250)

DEN
(3)

LTU
(240)

RUS

BYE
(84)

IRE
(rabies free)

UNK
(rabies free)

NET
(3)

POL
(419)
(3)

UKR
(no data)

BEL
(0)

DEU
(57)
(6)

(0)

CZH
(32)

SVK (46)

MLD
(3)

FRA
(1)

AUT
(0)

HUN (105)

SWI
(rabies free)

SVN
(20)

CRO
(104)

ROM
(11)

ITA
(rabies free)

BIH
(no data)

FRY
(29)

BUL
(3)

TYM
(rabies free)

POR
(rabies free)

SPA
(11)

ALB
(rabies free)

TUR
(45)

GRE
(rabies free)

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

0 50 100 km