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by the

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## 1. INTRODUCTION

This BULLETIN describes the reported rabies cases in Europe for the second quarter 1986. The situation in general appears under 2., and in individual countries under 2.1 to 2.27.

Rabies data for the prevailing quarter have not yet been received for the European part of the Union of Soviet Socialist Republics (USSR).

In the miscellaneous section a human rabies case in the Federal Republic of Germany (DEU) is described under 3.1; under 3.2 a summary of recent bat-rabies cases is given in the same country. The question of how do the present human anti-rabies vaccines protect against the bat-rabies strain in Europe is raised under 3.3. A review of rabies in Canada 1985 is the last article in the miscellaneous section.

The rabies case data are tabulated for the second quarter 1986 under 4.

The last part lists the official contributors to the BULLETIN.

The geographical distribution of cases in Europe of the first and second quarters 1986 is shown on the maps of Europe and Turkey in the Annex.

## 2. RABIES IN EUROPE, 2ND QUARTER 1986

During the second quarter 1986, 3582 cases of rabies were reported in Europe. There were 2778 cases in wild animals (77.6%) and 803 cases in domestic animals (22.4%). Of the cases in wild animals 2458 (68.6% of total) were foxes, 103 badgers, 101 other mustelids, 88 deer and 28 other and unspecified species. Of the 803 domestic animals 353 were dogs (of which 250 -70.8%- were reported from Turkey), 151 cats, 164 cattle, 18 horses, 109 small ruminants and 8 other domestic animals. These figures are summarized in Table 1.

The figures in Table 2 show accumulated totals of the first two quarters in 1986 for the European countries. The overall total amounted to 8195 cases. In comparison with the same period in 1985 (9267 cases) a reduction of 11.6% can be noticed.

Rabies-free countries were: Bulgaria, Finland, United Kingdom, Ireland, Iceland, Norway, Spain and Sweden. There were no further cases reported during this quarter from Greece and Portugal. Denmark reported three bat-rabies cases.

One imported human rabies case was from India reported for the Federal Republic of Germany.

Individual country reports follow:

### 2.1 Rabies in Austria (AUT) by E. Scharfen

During the second quarter of 1986, 348 cases of rabies were diagnosed in Austria, 5.2% fewer cases than in the first quarter 1986 and 33.6% fewer than in the second quarter of last year.

In detail there were 341 rabies cases in wild animals (98% of total), of which 293 were foxes (84.2%), 33 badgers (9.5%), 8 roe deer (2.3%) and 7 martens (2%), and 7 rabies cases in domestic animals (2%) of which 4 were cats, 2 horses and 1 head of cattle.

The epizootic was prevalent in all districts (Bezirke) of the federal provinces of Vorarlberg and Salzburg (except for Salzburg-Stadt and -Umgebung), in Upper and South Styria (Bezirke Liezen, Murau, Judenburg, Knittelfeld, Leoben, Voitsberg, Deutschlandsberg, Leibnitz, Radkersburg) and the bordering districts of Carinthia (Wolfsberg, Völkermarkt, St. Veit/Glan, Feldkirchen, Spittal/Drau). There were cases in Upper Austria in the Salzkammergut (Bezirk Gmunden-Süd) and to the north of the river Danube in the district Perg. In Lower Austria rabies occurs to the north of the river Danube in the districts of Gmünd, Zwettl, Waidhofen/Thaya, Horn, Krems-Land, Hollabrunn, Mistelbach and to the south of the river Danube only in the eastern part of the district Wiener-Neustadt. In the Burgenland several cases were recorded near the eastern state border.

The federal provinces Tyrol and Vienna were free of rabies.

### 2.2 Rabies in Belgium (BEL) by I. Fontaine

During the second quarter 1986, 62 cases of rabies were registered in 46 communities in 27 foxes, 15 cattle, 6 sheep, 1 goat, 3 dogs, 5 cats, 3 badgers, 1 polecat and 1 stone marten.

These figures show a substantial reduction of recorded rabies cases (46% less compared to the previous quarter). It affects the domestic animals by a reduction of 21% and the wild animals by 58%.

In comparison with the second quarter 1985 (49 cases) an increase is noted by ca. 25%.

With only one exception, all infected communities during the second quarter are situated in the provinces of Liège and Luxembourg.

### 2.3 Bulgaria (BUL)

The country remained rabies-free.

### 2.4 Rabies in Czechoslovakia (CZE) by M. Capka and J. Neumann

In the second quarter of 1986 a total of 323 rabies cases were ascertained in the Czechoslovak Socialist Republic, 262 cases in the Czech Socialist Republic and 61 cases in the Slovak Socialist Republic.

In comparison with the same period of the past year, the total number of rabies cases decreased by 109 cases.

In the Czech Socialist Republic rabies was diagnosed in 232 foxes (88.5%), in 8 martens, 4 badgers, 2 roe deer, 2 polecats, 1 moufflon and 1 stag. In domestic animals rabies was ascertained in 5 dogs (1.9%), 5 cats (1.9%), 1 head of cattle (0.4%) and 1 sheep (0.4%).

In the Slovak Socialist Republic rabies was ascertained in 40 foxes (65.6%), 2 martens, 1 moufflon, 1 roe deer, 1 wolf, 8 dogs (13.2%), 7 cats (11.5%) and 1 head of cattle (1.6%).

The majority of cases occurred in the South Bohemian and South Moravian Region.

No case of rabies has been recorded in man.

## 2.5 Rabies in Germany, Democratic Republic (DDR)

During the second quarter 1986, 299 cases of rabies were registered in the Democratic Republic of Germany, a few cases more than during the same period 1985 (281) and 47 cases less than during the first quarter 1986 (346).

The following species were affected by the disease in wild animals: the fox with 200 cases (66.9% of total), 17 stone martens, 2 pine martens, 5 badgers, 1 racoon dog, 11 roe deer and 2 wild boars. 21 dogs, 18 cats, 11 cattle, 10 sheep and 1 pig were diagnosed rabid in domestic animals.

The departments (Bezirke) Erfurt (49) and Rostock (52) record as in the previous quarter the highest figures.

A relative low concentration of cases at the moment is noticed in the middle part of the country.

## 2.6 Rabies in Denmark (DEN)

by E. Stougaard

The country remained rabies-free in regard to terrestrial animals, but 3 cases of bat-rabies were diagnosed.

During the 2nd quarter of 1986 the following animal species have undergone laboratory examination for rabies: 24 bats, 2 dogs, 3 cats and 1 fitchew.

The 3 positive bat-rabies cases occurred in the large dark brown bat (*Eptesicus serotinus*).

## 2.7 Rabies in Germany, Federal Republic (DEU)

A total of 1090 rabies cases were reported during the second quarter 1986, 392 cases (26.5%) less than during the previous quarter.

948 cases of the total (87%) are in wild animals: 809 foxes, 46 badgers, 36 stone marten, 4 polecats, 46 roe deer, 3 fallow deer, 2 wild

boars and 2 mouflons. Of 141 cases in domestic animals are 11 dogs, 34 cats, 10 horses, 48 cattle, 37 sheep and one goat.

There was one human case (see as well under 3.1 in this BULLETIN).

Concentration of rabies cases was reported in the Regierungsbezirke (departments) Köln, Arnsberg, Braunschweig und Freiburg.

## 2.8 Finland (FIN)

The country remained rabies-free.

## 2.9 Rabies in France (FRA) by J. Blancou

602 rabies cases were reported during the second quarter 1986, 68 cases less than during the previous quarter. 464 cases were registered in the fox (77.1% of total), 26 in other wild animals and 112 in domestic animals (25 dogs, 29 cats, 17 cattle, 37 small ruminants, 3 horses and one pig). The départements (departments) with the greatest number of recorded cases are, during this quarter: Doubs (55 cases), Aube (54 cases) and Vosges (49 cases).

The situation at the rabies front remained, in its entirety, stable.

## 2.10 Rabies in Greece (GRE)

During the second quarter of 1986, no case of rabies was reported in Greece.

## 2.11 United Kingdom (GBR)

The country remained rabies-free.

## 2.12 Rabies in Hungary (HUN) by L. Koltai

During the second quarter 1986, 172 rabies cases were diagnosed in Hungary, 15 cases more than during the same period last year (157). There were 142 cases in foxes (82.5% of total). The 13 dogs affected were strays and not vaccinated.

Most of the cases occur in the south-western part of the country (Somogy-20, Veszprem-19, Zala-13). The komitats (departments) Somogy and Zala have a common border with Yugoslavia. An increase was noted in the Komitat Győr-Sopron (2/1985-12, 2/1986-19), while there was a decrease in the Komitat Vas (2/1985-14, 2/1986-7). The latter two Komitats border with Austria. All the above mentioned Komitats have a hilly and foresty habitat where a dense fox population is expected. One Komitat with a predominantly agricultural area is Békés. Surprisingly, there was an increase of cases as well (2/1985-7, 2/1986-16).

Rabies cases have stagnated in Hungary over the last four years. For 19 years annual gassing of fox dens to reduce the fox population has been carried out under the supervision of the veterinary department. As the execution of these duties has become less reliable, the Ministry of Agriculture and Food has decided to stop it from 1987 onward. It is expected that the reduction of the fox population can work without central control.

#### 2.13 Iceland (ISL)

The country remained rabies-free.

#### 2.14 Ireland (IRE)

The country remained rabies-free.

#### 2.15 Rabies in Italy (ITA) by S. Proseri

During the second quarter 1986, 16 cases of wild animal rabies were reported (13 foxes, 2 badgers and one roe-deer), all in the province of Trento, and one case in a dog in Rome, imported from Yugoslavia (already mentioned in my report of the first quarter 1986).

At present the rabies epidemic has its front-wave in the province of Trento. In other Alpine regions, which were previously infected, the incidence is decreasing: rabies hasn't been diagnosed in the Valle d'Aosta for the last two years, in Lombardia for one year (last cases May 1985) and in Friuli-Venezia-Giulia as well for one year (last case April 1985).

During May and June 1986, a field trial of oral vaccination of foxes with strain SAD-B19 of Tübingen has been carried out in certain parts of Brescia, Trento and Bolzano provinces.

#### 2.16 Rabies in Luxembourg (LUX) by R. Frisch

The relatively low infection rate of rabies in the country, noticed during the first quarter 1986, has prevailed during the second quarter as well. Only 13 rabies cases were diagnosed from April to June 1986. Of these 11 were in foxes, 1 in a badger and 1 in a bovine.

During the last 6 months, the north and the east of the Grand Duchy of Luxembourg were affected by the epizootic. There was not a single rabies case diagnosed in the south of the country.

#### 2.17 Rabies in the Netherlands (NET)

During the second quarter of 1986, the country was free of rabies.

#### 2.18 Norway (NOR)

The country remained rabies-free.

### 2.19 Rabies in Poland (POL) by J. Kolacz

A total of 145 rabies cases were reported in Poland during the second quarter 1986. Compared to the same period of the previous year a small decrease is noted (161 cases in 1985).

Of the total number of cases 113 were registered in wild animals (77.9%) and 32 in domestic animals (22.1%).

The following species were affected with rabies during the second quarter 1986: foxes 69.7%, cats 11%, dogs 6.9%, farm animals 4.1%, deer 3.4%, racoon dogs 2.7%, other wild animals 2%.

The disease was reported mainly in the districts: Opole 23.4% of the total cases, Bydgoszcz 8.9%, Poznań 8.9%, Jelenia Góra 7.5% and Zielona Góra 6.8%.

Cases in dogs and cats were noted in 8 districts but foxes were affected with rabies in 28 districts.

No cases of rabies were reported for this quarter from 20 districts (40.8% of the total area).

### 2.20 Rabies in Portugal (POR)

No case of rabies was reported during the second quarter 1986.

### 2.21 Rabies in Romania (ROM)

There were 24 rabies cases reported in Romania during the second quarter 1986, one less compared to the previous quarter. Of the 24 cases 15 were in wild animals (14 foxes, 1 badger) and 9 in domestic animals (2 dogs, 3 cats, 2 cattle, 2 sheep).

Only eight provinces were affected by the disease with between 1 to 8 cases. Four of these provinces are situated in the eastern part of the country, and four in the western part.

### 2.22 Rabies in Spain (SPA)

The country remained rabies-free.

### 2.23 Sweden (SWE)

The country remained rabies-free.

### 2.24 Rabies in Switzerland (SWI) by A.I. Wandeler

During the second quarter of 1986, the Swiss Rabies Diagnostic Center received 565 animals for examination. 23 (4%) of these were positive for rabies compared to 32 (3% of 1147) in the previous quarter and 74 (9%



of 789) in the second quarter of 1985. 10 were observed in foxes. An additional 21 foxes and 2 martens were diagnosed histologically in canton Vaud. They bring the total of proven rabies cases to 46 (76 in the previous quarter).

The majority of the cases diagnosed at the Swiss Rabies Centre and all animals diagnosed histologically originate either in western canton Vaud or in the Jura Mountains in western and northwestern Switzerland, areas not protected by oral fox vaccination. The Swiss Alps and most of the Swiss Midlands were freed from rabies in recent years, so that the few rabid animals observed were close to the border to enzootic areas abroad (2 in canton Valais, 1 in canton Graubünden). 4 of the animals diagnosed rabid originated in the focus of southern canton Aargau. 2 rabid animals are from western canton Schaffhausen north of the river Rhein. In both areas oral fox vaccination campaigns were started only recently.

In the second quarter of 1986 no human bite contamination was registered. The number of people treated for non-bite exposures is not recorded.

#### 2.25 Rabies in Turkey (TUR)

During the second quarter 1986, 348 rabies cases were registered in Turkey. Of these were 339 cases in domestic animals (97.4%) and 9 cases in wild animals.

Compared to the first quarter 1986 (271 cases) there was an increase by 77 cases (28.4%), compared to the second quarter 1985 (336 cases) by 12 cases.

#### 2.26 Rabies in Yugoslavia (YUG)

90 cases of rabies were reported in Yugoslavia, with 82 cases in wild animals and 8 in domestic animals.

Though the infected area of the country, as compared to several recent quarters, is not diminished the number of cases in general is grossly reduced. Only in 1979 was there a single quarter with less than 90 reported cases and at that time the infected area was much smaller.

The distribution of animal species remains as in previous quarters indicating the wildlife type rabies (91.1% of total cases are wild animals).

#### 2.27 Rabies in the Union of the Soviet Socialist Republics (USSR)

Data not received before going to press.

### 3. MISCELLANEOUS

#### 3.1 Imported Human Rabies Case in the Federal Republic of Germany (DEU)

On 10 June 1986 a woman, aged 29, died of rabies in Hamburg. She had initially been a patient in a psychiatric clinic. The diagnosis rabies had been suggested on 21 May 1986.

The woman had returned from India where she was bitten by a dog in her right forearm during February 1986.

#### 3.2 Bat-Rabies Cases in the Federal Republic of Germany (DEU)

In recent issues of this BULLETIN bat-rabies cases in Denmark (DEN), Poland (POL) and the Union of Soviet Socialist Republics (USR) were reported, as well as one human case in Finland (FIN) possibly of bat origin (issue 4/85, page 11).

This article summarizes more recent bat-rabies cases which occurred in the Federal Republic of Germany (DEU) including some which fall into the reporting period of the next quarter (see table).

#### Recent bat-rabies cases in the Federal Republic of Germany (DEU)

Geographic Location	Time reported	Genus and Species
1. Bremerhaven	22.5.1985	Eptesicus serotinus <sup>1)</sup>
2. Tübingen	21.3.1986	Eptesicus fuscus <sup>2) 3)</sup>
3. Ottweiler	03.6.1986	- <sup>1) 3)</sup>
4. Peine	21.8.1986	Eptesicus serotinus <sup>3)</sup>
5. Nienburg	28.8.1986	Eptesicus serotinus
6. Lüneburg	28.8.1986	- <sup>1) 3)</sup>
7. Dorum	03.9.1986	- <sup>1) 3)</sup>
8. Nienburg	10.9.1986	Eptesicus serotinus <sup>1)</sup>
9. Steinau	11.9.1986	- <sup>3)</sup>
10. Lüneburg	16.9.1986	Myotis sp.
11. Offenwarden	17.9.1986	Myotis sp. <sup>3)</sup>
12. Loxstedt-Neuenlande	18.9.1986	Eptesicus serotinus <sup>3)</sup>

1) Duvenhage rabies strain

2) Bat rabies strain prevailing in North America

3) Human contact and postexposure treatment

Previous cases were reported from Hamburg (1968), Stade (1970) and Bremerhaven (1982). When these strains were characterised with monoclonal antibodies they were closely related, but not identical, to the Duvenhage virus, a strain first isolated in South Africa and which became the prototype of the serotype 4 of the genus *Lyssavirus* in the rabies group (see Tech.Rep.Series 709, WHO Expert Committee on Rabies 1984, page 9).

While the three German cases occurred over a lengthy period, in 1985 and 1986 many bat-rabies cases were reported in Poland, Denmark and again in the Federal Republic of Germany all resembling in its characterisation the Duvenhage type. And there was one other stereotype feature: the overall majority occurred in the species *Eptesicus serotinus*.

This bat is distributed throughout Europe except for the far north. In Germany it is more common in the northern flatlands and it is there where most of the cases originated (the three forementioned and ten mentioned in the table).

No. 2 in the table is a bat, *Eptesicus fuscus*, which was introduced to Tübingen from Canada for research purposes. The characterisation of the strain with monoclonal antibodies revealed a pattern for the serotype 1 of the genus *Lyssavirus*.

Most of the rabid bats were found in a sick state and bit people when handled. In eight out of twelve bats in the table a postexposure treatment, partly to more than one person, had to be initiated. This has instantly pointed out that bats in a certain area (in the described article northern Germany) and to a certain group of people (biologists working with bats, people dealing with bats in wildlife protection societies, people with bats in their houses) are of public health importance. And it should be pointed out to the public that any weak or strange acting bats can be a potential carrier of rabies.

Therefore, as most important preventional measure has to be suggested: not to touch the animal but leave it to health officials to arrange for laboratory examination.

### 3.3 Present Human Rabies Vaccines and Neutralising Antibody Activity against the Bat-Rabies Strain DUVENHAGE recently isolated in Poland (POL), Denmark (DEN) and the Federal Republic of Germany (DEU)

An increase of bat rabies cases in Europe within the last year (the BULLETIN has reported on several occasions), has shown a definite risk of human exposure. The rabies strains isolated from bats have been characterised by monoclonal antibodies as being closely related to the Duvenhage virus, the prototype strain of serotype 4 of the genus *Lyssavirus* of the rhabdoviruses. As all the present human vaccines produced make use of strains of the serotype 1 group the question arose how effective these vaccines protect against the Duvenhage infection.

Investigations have been carried out in two ways: by mouse protection tests, in which vaccinated mice are challenged with the Duvenhage virus and by testing the neutralizing antibody activities with the Duvenhage virus in sera of vaccinated persons.

Initial studies in mice immunised with the PM strain of fixed rabies virus had revealed poor protection against the previous German bat isolates (Schneider, L.G., Comp. Immunn. Microbiol. Inf. Dis. 5, 101-107, 1982). Today more vaccines have been tested but with divergent results, i.e. in some vaccines there is more, in others less, protection.

More congruent results were obtained in testing neutralising antibodies against the bat rabies virus in human sera and immunoglobulins. Though there are often lower levels of neutralising antibodies detectable with the bat strain, compared to strains of the serotype 1 group, nevertheless, in most cases a protective titre remains.

In Table 1 results of human sera from routine investigation at the WHO Collaborating Centre for Rabies Surveillance and Research, Tübingen, and immunoglobulins are presented comparing the titers against CVS and Duvenhage strains (Schneider, L.G., Cox, J.H. and Müller, W.W. - unpublished data).

Table 1:

Comparison of Virus Neutralisation Titres against CVS and Bat-Stade in Sera from Humans Vaccinated with HDC-Vaccine

Number of Patients	SNT against CVS	SNT against Bat-Stade	Difference
6 x	1:50 -1:6250	1:50-1:6250	-
6 x	1:250-1:6250	1:50-1:1250	5x
3 x	1:78125	1:750	104x
1 x	1:6250	1:250	25x
1 x	1:1250	1:150	8x
1 x	1:1250	1:50	25x
1 x	1:250	1:10	25x
<hr/>			
Reference			
Pool 1 Germany*	1:3000	1:250	12x
<hr/>			
Rabies Immunoglobulin of Human Origin RIGH			
<hr/>			
Pool 2 France	1:6250	1:6250	-
" 3 Spain	1:4860	1:250	19x
" 4 Spain	1:250	1:250	-
" 5 Yugoslavia	1:4860	1:3750	1,3x
Batch 41 10 16	1:24000	1:6250	3,8x
" 41 10 20	1:24000	1:3750	6,4x
<hr/>			
Rabies Immunoglobulin Horse	1:96000	1:6250	15x
<hr/>			

\* Pool 1 Germany serves for the time being as Reference due to the fact that the WHO Reference Serum had no titre against Bat-Stade

Tables 2 and 3 (work of the WHO Collaborating Centre for Reference and Research in Rabies, Paris, and published in The Lancet, August 30, 1986 by M. Lafon, M. Herzog and P. Surreau) show neutralising antibody titers of 5 known vaccines at day 7 and 28 tested against the Stade bat rabies strain, and neutralising antibody titres in rabies immune globulins of human origin (RIGH) comparing CVS and Stade bat virus.

Table 2:

Neutralising antibody titres against European bat rabies virus (Stade) in sera of volunteers vaccinated against rabies.

Vaccine*	Neutralising antibody titres**	
	Day 7	Day 28
HDCV (n = 10)	1.26 (0.4-2.9)	13.15 (2.6-34.3)
PVRV (n = 10)	0.44 (0.1-1.0)	6.74 (1.1-54.7)
PDEV (n = 12)	1.23 (0.5-2.6)	5.28 (0.8-24.8)
FBKC (n = 10)	0.99 (0.4-5.7)	7.41 (2.5-26.8)
PCEC (n = 11)	0.99 (0.3-10.9)	5.45 (0.6-97.5)

\* HDCV = human diploid cell, PVRV = purified vero rabies, PDEV = purified durck embryo, FBKC = fetal bovine kidney cell, and PCEC = purified chick embryo cell, n = number of vaccines.

\*\* In arbitrary units ml, expressed as geometric mean titre and range.

Table 3:

Neutralising antibody titres against rabies CVS virus and European bat rabies virus (Stade) in rabies immune globulins of human origin (RIGH)

RIGH	Neutralising antibody titre* against:	
	CVS virus (IU/ml)	Bat-Stade virus (AU/ml)
Reference human antirabies serum	10	7.8
Imogam A.0232	159	105
Imogam A.0242	169	106
Imogam A.0341	181	126
Imogam Z.1333	215	126
Concentrated RIGH (Nancy)	488	595

\* Arithmetic mean of quadruplicate titration

In summary it can be said that in cases of human exposure to European bats at this point postexposure treatment with vaccine and RIGH should be administered according to the WHO recommendations, as for exposure to rabid terrestrial mammals.

### 3.4 Rabies in Canada - 1985 by D.J. Gregory

Positive rabies cases increased by 40% in Canada during 1985. The red fox and striped skunk continued to be the wildlife species most affected by the increase. Those domestic species, cattle, horse and cat, most likely to contact the wildlife also showed increases. A male university student died of rabies as a result of a bat bite while camping.

#### Submission

Specimen submissions to the two federal laboratories conducting rabies diagnoses were 12,556, an increase of 6.7% from the year before.

#### Positive Diagnosis

Positive rabies diagnoses in domestic and wildlife animals for 1985 are summarized in the table provided. Approximately 18.6% or 1 in 5.5 submissions proved to be positive for rabies - an increase of 27.4% from 1984 (figures in RABIES BULLETIN EUROPE 1/85). The following are points of interest, comparing 1984 and 1985:

1. "Clinicals" - are field diagnoses on clinical signs - for which compensation is paid.
2. Ontario region experienced a 43.8% increase in positive cases of rabies during 1985.
3. Quebec and Saskatchewan are also experiencing increases in positive diagnoses.
4. The death of a male university student 3 months after receiving a bat bite while camping.
5. The positive diagnosis of a beaver in British Columbia. Monoclonal antibodies determination showed the strain profile to be that of skunks found in Alberta.
6. The number of positive raccoons, remained low.
7. The number of positive bats decreased from 1984.
8. The number of positive diagnoses for cattle nearly doubled the 1984 figure.
9. The number of positive diagnoses for cats increased by some 30% over 1984.
10. In a comparison program shared with participating provinces, the federal government paid \$108,275 for 474 head of livestock that had died of rabies. Nearly all of this, \$107,535 was paid in Ontario.
11. Some 1714 premises were placed under quarantine for rabies, involving some 33,998 animals.

#### Recent program changes

1. Rabies vaccination provided at government sponsored clinics will cost \$3.00 under the governments cost-recovery program.
2. Laboratory Sample Control System a computerized program to log and track laboratory submissions was implemented on July 1, 1985. Implementation started with rabies submissions in Ontario, Quebec and the Atlantic Provinces and will expand to include all diseases and provinces.
3. The Universal Transverse Mercator Code for location of rabies (or any other disease) positives is ready for implementation in Ontario using the Lab Sample Control System.

4. In cooperation with Agriculture Canada, the Ontario Ministry of Natural Resources will continue its field trials using vaccine impregnated bait to vaccinate wildlife.

Because of the lateness of my report the following notes of interest are added:

- 1) The tissue culture/FA test has replaced the mouse inoculation test as of June 1, 1986. The mouse inoculation test was used in instances where the FA test was negative and there was a history of human contact.
- 2) "Rabies - its not worth the risk" is a new publication on rabies produced by Agriculture Canada. The publication was produced with a poster for distribution to veterinarians in the field.

CAN		CANADA																	RABIES CASES		1. 1.85 - 31.12.85	
LOCATION NAME	DOMESTIC ANIMALS								WILD ANIMALS								HUMAN	TOTAL				
	DOG	CAT	HORSE	PIG	CATTLE	SHEEP	GOAT	TOTAL	FOX	COYOTE	WOLF	RACCOON	SKUNK	BAT	MARMOT	BEAVER			RABBIT	TOTAL		
ALBERTA	-	-	-	-	-	-	-	0	-	-	-	-	8	4	-	-	-	12	-	12		
BRITISH COLUMBIA	-	-	-	-	-	-	-	0	-	-	-	-	-	11	-	1	-	12	1	13		
MANITOBA	1	1	-	-	3	-	-	5	-	-	-	43	-	-	-	-	-	43	-	48		
NORTHWEST TERRITORIES	1	-	-	-	-	-	-	1	18	-	1	-	-	-	-	-	-	17	-	18		
ONTARIO	61	83	25	9	243	44	14	479	991	9	3	19	448	38	4	-	1	1508	-	1987		
QUEBEC	3	3	-	-	5	1	-	12	14	-	1	-	4	1	-	-	-	20	-	32		
SASKATCHEWAN	1	4	3	-	9	-	-	17	1	-	-	1	205	7	-	-	-	214	-	231		
TOTAL	67	91	28	9	260	45	14	514	1022	9	5	20	708	58	4	1	1	1826	1	2341		
PER CENT	2.9	3.9	1.2	0.4	11.1	1.9	0.6	22.0	43.7	0.4	0.2	0.9	30.2	2.5	0.2	0.0	0.0	78.0	0.0	100.0		
CLINICALS	-	-	2	5	133	23	3	166	-	-	-	-	-	-	-	-	-	0	-	166		
TOTAL	67	91	30	14	393	68	17	680	1022	9	5	20	708	58	4	1	1	1826	1	2507		
PER CENT	2.7	3.6	1.2	0.6	15.7	2.7	0.7	27.1	40.8	0.4	0.2	0.8	28.2	2.3	0.2	0.0	0.0	72.8	0.0	100.0		

TABLE 1

EUR		EUROPE		2/86		RABIES CASES								1. 4.86 - 30. 6.86		
LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL	
CODE	NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS			TOTAL
AUT	AUSTRIA	-	4	1	2	-	-	7	293	33	7	8	-	341		348
BEL	BELGIUM	3	5	15	-	7	-	30	27	3	2	-	-	32		62
BUL	BULGARIA *							0						0		0
CZE	CZECHOSLOVAKIA	13	12	2	-	1	-	28	272	4	12	4	3	295		323
DDR	GERMAN DEM. REPUBLIC	21	18	11	-	10	1	61	200	5	19	11	3	238		299
DEN	DENMARK							0	-	-	-	-	3	3		3
DEU	FED. REP. OF GERMANY	11	34	48	10	38	-	141	809	46	40	49	4	948	1	1090
FIN	FINLAND *							0						0		0
FRA	FRANCE	25	29	17	3	37	1	112	464	4	13	8	1	490		602
GBR	UNITED KINGDOM *							0						0		0
GRE	GREECE *							0						0		0
HUN	HUNGARY	13	7	6	-	-	1	27	142	-	1	1	1	145		172
IRE	IRELAND *							0						0		0
ISL	ICELAND *							0						0		0
ITA	ITALY	1	-	-	-	-	-	1	13	2	-	1	-	16		17
LUX	LUXEMBOURG	-	-	1	-	-	-	1	11	1	-	-	-	12		13
NET	NETHERLANDS *							0						0		0
NOR	NORWAY *							0						0		0
POL	POLAND	10	16	5	-	-	1	32	101	1	2	5	4	113		145
POR	PORTUGAL *							0						0		0
ROM	ROMANIA	2	3	2	-	2	-	9	14	1	-	-	-	15		24
SPA	SPAIN *							0						0		0
SWE	SWEDEN *							0						0		0
SWI	SWITZERLAND + LIECHT	-	4	1	-	2	-	7	31	2	5	-	1	39		46
TUR	TURKEY	250	17	54	3	11	4	339	1	-	-	-	8	9		348
YUG	YUGOSLAVIA	4	2	1	-	1	-	8	80	1	-	1	-	82		90
TOTAL		353	151	164	18	109	8	803	2458	103	101	88	28	2778	1	3582
PER CENT		9.9	4.2	4.6	0.5	3.0	0.2	22.4	68.6	2.9	2.8	2.5	0.8	77.6	0.0	100.0

\* NO CASES.



TABLE 2

EUR		EUROPE		1-2/86		RABIES CASES							1. 1.86 - 30. 6.86			
LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL	
CODE	NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS			TOTAL
AUT	AUSTRIA	1	11	6	2	-	-	20	613	42	13	27	-	695		715
BEL	BELGIUM	7	9	33	1	18	-	68	101	4	3	2	-	110		178
BUL	BULGARIA	*						0						0		0
CZE	CZECHOSLOVAKIA	25	18	2	-	2	-	47	631	4	18	11	5	669		716
DDR	GERMAN DEM. REPUBLIC	33	39	18	1	23	2	116	465	7	26	27	4	529		645
DEN	DENMARK							0	-	-	-	-	3	3		3
DEU	FED. REP. OF GERMANY	29	78	97	18	98	2	322	1943	73	65	163	6	2250	1	2573
FIN	FINLAND	*						0						0		0
FRA	FRANCE	36	54	28	9	67	2	196	1048	9	22	14	1	1094		1290
GBR	UNITED KINGDOM	*						0						0		0
GRE	GREECE	*						0						0		0
HUN	HUNGARY	30	27	15	-	-	2	74	447	-	1	16	2	466		540
IRE	IRELAND	*						0						0		0
ISL	ICELAND	*						0						0		0
ITA	ITALY	1	-	-	-	-	-	1	22	3	-	1	-	26		27
LUX	LUXEMBOURG	-	1	1	-	-	-	2	17	3	1	-	-	21		23
NET	NETHERLANDS	*						0						0		0
NOR	NORWAY	*						0						0		0
POL	POLAND	24	39	9	-	1	2	75	255	2	6	21	13	297		372
POR	PORTUGAL	*						0						0		0
ROM	ROMANIA	4	4	5	-	5	-	18	29	2	-	-	-	31		49
SPA	SPAIN	*						0						0		0
SWE	SWEDEN	*						0						0		0
SWI	SWITZERLAND + LIECHT	1	8	1	-	2	-	12	85	6	14	4	1	110		122
TUR	TURKEY	440	30	86	4	28	9	597	3	-	-	-	19	22		619
YUG	YUGOSLAVIA	8	5	1	-	1	2	17	300	2	-	1	3	306		323
TOTAL		639	323	302	35	245	21	1565	5959	157	169	287	57	6629	1	8195
PER CENT		7.8	3.9	3.7	0.4	3.0	0.3	19.1	72.7	1.9	2.1	3.5	0.7	80.9	0.0	100.0

\* NO CASES.

TABLE 3

EUR		EUROPE		2/86		RABIES CASES 'OTHER ANIMAL SPECIES'							1. 4.86 - 30. 6.86	
LOCATION		OTHER DOMESTIC ANIMALS			OTHER WILD ANIMALS								TOTAL	
CODE	NAME	DONKEY	PIG	OTH. DOM. HERBIVOR	WOLF	RACCOON DOG	WILD CAT	WILD BOAR	MOUFLON	CHAMOIS	INSECTIV BAT	HOUSE MOUSE		VOLE
CZE	CZECHOSLOVAKIA	-	-	-	1	-	-	-	2	-	-	-	-	3
DDR	GERMAN DEM. REPUBLIC	-	1	-	-	1	-	2	-	-	-	-	-	4
DEN	DENMARK	-	-	-	-	-	-	-	-	-	3	-	-	3
DEU	FED. REP. OF GERMANY	-	-	-	-	-	-	2	2	-	-	-	-	4
FRA	FRANCE	-	1	-	-	-	1	-	-	-	-	-	-	2
HUN	HUNGARY	-	1	-	-	-	-	-	-	-	-	-	1	2
POL	POLAND	-	1	-	-	4	-	-	-	-	-	-	-	5
SWI	SWITZERLAND + LIECHT	-	-	-	-	-	-	-	-	1	-	-	-	1
TUR	TURKEY	1	-	3	1	-	-	-	-	-	-	7	-	12
TOTAL		1	4	3	2	5	1	4	4	1	3	7	1	36
PER CENT		2.8	11.1	8.3	5.6	13.9	2.8	11.1	11.1	2.8	8.3	19.4	2.8	100.0

AUT AUSTRIA

## RABIES CASES

1. 4.86 - 30. 6.86

LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL	
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS			TOTAL
107	NEUSIEDL AM SEE							0	11	-	-	1	-	12		12
205	SANKT VEIT AN DER GL							0	1	-	-	-	-	1		1
206	SPITTAL AN DER DRAU							0	1	-	-	-	-	1		1
208	VOELKERMARKT							0	-	-	1	-	-	1		1
209	WOLFSBERG	-	1	-	-	-	-	1	21	2	2	-	-	25		26
210	FELDKIRCHEN							0	1	-	-	-	-	1		1
309	GMUEND							0	8	1	1	-	-	10		10
310	HOLLABRUNN							0	3	-	-	-	-	3		3
311	HORN							0	4	-	-	-	-	4		4
313	KREMS AN DER DONAU-L							0	1	1	-	-	-	2		2
316	MISTELBACH							0	1	-	-	-	-	1		1
322	WAIDHOFEN AN DER THA							0	1	-	-	-	-	1		1
323	WIENER NEUSTADT-LAND							0	7	1	-	-	-	8		8
325	ZWETTL							0	5	1	-	-	-	6		6
407	GMUNDEN							0	5	-	-	-	-	5		5
411	PERG							0	2	-	-	-	-	2		2
502	HALLEIN							0	15	1	-	-	-	16		16
504	SANKT JOHANN IM PONG	-	-	1	-	-	-	1	19	1	-	-	-	20		21
505	TAMSWEG							0	1	-	-	1	-	2		2
506	ZELL AM SEE	-	1	-	-	-	-	1	27	3	-	-	-	30		31
603	DEUTSCHLANDSBERG							0	8	-	-	-	-	8		8
608	JUDENBURG							0	12	6	-	-	-	18		18
609	KNITTELFELD							0	37	1	-	3	-	41		41
610	LEIBNITZ							0	2	-	-	-	-	2		2
611	LEOBEN							0	4	1	-	-	-	5		5
612	LIEZEN	-	-	-	2	-	-	2	75	9	3	2	-	89		91
614	MURAU							0	4	1	-	-	-	5		5
615	RADKERSBURG							0	-	-	-	1	-	1		1
616	VOITSBERG							0	10	-	-	-	-	10		10
801	BLUDENZ							0	1	-	-	-	-	1		1
802	BREGENZ	-	2	-	-	-	-	2	3	1	-	-	-	4		6
803	DORNBIRN							0	1	2	-	-	-	3		3
804	FELDKIRCH							0	2	1	-	-	-	3		3
TOTAL		0	4	1	2	0	0	7	293	33	7	8	0	341	0	348
PER CENT		0.0	1.1	0.3	0.6	0.0	0.0	2.0	84.2	9.5	2.0	2.3	0.0	98.0	0.0	100.0

## R A B I E S   C A S E S

1. 4.86 - 30. 6.86

LOCATION CODE    NAME	D O M E S T I C   A N I M A L S							W I L D   A N I M A L S						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
<b>BEL    B E L G I U M</b>															
HH HAINHAUT	-	-	1	-	-	-	1	-	-	-	-	-	0	-	1
LG LIEGE	-	-	2	-	-	-	2	7	2	1	-	-	10	-	12
LX LUXEMBOURG	3	5	12	-	7	-	27	20	1	1	-	-	22	-	49
TOTAL	3	5	15	0	7	0	30	27	3	2	0	0	32	0	62
PER CENT	4.8	8.1	24.2	0.0	11.3	0.0	48.4	43.5	4.8	3.2	0.0	0.0	51.6	0.0	100.0
<b>DEN    D E N M A R K</b>															
050 SONDERJYLLAND							0	-	-	-	-	2	2		2
055 RIBE							0	-	-	-	-	1	1		1
TOTAL	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
<b>ITA    I T A L Y</b>															
00 ROMA	1	-	-	-	-	-	1	-	-	-	-	-	0	-	1
38 TRENTO							0	13	2	-	1	-	16		16
TOTAL	1	0	0	0	0	0	1	13	2	0	1	0	16	0	17
PER CENT	5.9	0.0	0.0	0.0	0.0	0.0	5.9	76.5	11.8	0.0	5.9	0.0	94.1	0.0	100.0
<b>LUX    L U X E M B O U R G</b>															
04 LUXEMBOURG-CAMPAGNE	-	-	1	-	-	-	1	3	-	-	-	-	3		4
05 MERSCH							0	3	-	-	-	-	3		3
06 CLERVAUX							0	1	-	-	-	-	1		1
07 DIEKIRCH							0	1	-	-	-	-	1		1
12 GREVENMACHER							0	2	1	-	-	-	3		3
13 REMICH							0	1	-	-	-	-	1		1
TOTAL	0	0	1	0	0	0	1	11	1	0	0	0	12	0	13
PER CENT	0.0	0.0	7.7	0.0	0.0	0.0	7.7	84.6	7.7	0.0	0.0	0.0	92.3	0.0	100.0

CZE

CZECHOSLOVAKIA

RABIES CASES

1. 4.86 - 30. 6.86

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		
00 DISTRICT OF PRAGUE	-	1	-	-	-	-	0	-	-	-	-	-	0	-	0
01 CENTRAL BOHEMIA	-	1	-	-	-	-	1	10	-	-	-	-	10	-	11
02 SOUTH BOHEMIA	1	-	-	-	-	-	1	47	-	4	-	-	51	-	52
03 WEST BOHEMIA	1	-	-	-	-	-	1	40	-	1	-	-	41	-	42
04 NORTH BOHEMIA	-	1	-	-	-	-	1	31	1	1	-	1	34	-	35
05 EAST BOHEMIA	-	-	-	-	-	-	0	17	-	2	-	-	19	-	19
06 SOUTH MORAVIA	2	3	-	-	-	-	5	76	1	2	2	-	81	-	86
07 NORTH MORAVIA	1	-	1	-	1	-	3	11	2	-	1	-	14	-	17
0 CSR	5	5	1	-	1	-	12	232	4	10	3	1	250	-	262
10 DISTRICT OF BRATISLAV	-	-	-	-	-	-	0	4	-	-	-	-	4	-	4
11 WEST SLOVAKIA	1	2	-	-	-	-	3	11	-	-	-	1	12	-	15
12 CENTRAL SLOVAKIA	5	4	-	-	-	-	9	12	-	1	1	-	14	-	23
13 EAST SLOVAKIA	2	1	1	-	-	-	4	13	-	1	-	1	15	-	19
1 SSR	8	7	1	-	-	-	16	40	-	2	1	2	45	-	61
TOTAL	13	12	2	0	1	0	28	272	4	12	4	3	295	0	323
PER CENT	4.0	3.7	0.6	0.0	0.3	0.0	8.7	84.2	1.2	3.7	1.2	0.9	91.3	0.0	100.0

DDR

GERMAN DEMOCRATIC REPUBLIC

R A B I E S   C A S E S

1. 4.86 - 30. 6.86

LOCATION CODE    NAME	D O M E S T I C   A N I M A L S							W I L D   A N I M A L S						HUMAN CASES	TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
01 HAUPTSTADT BERLIN							0						0		0
02 COTTBUS							0	1	-	-	-	-	1		1
03 DRESDEN	-	1	2	-	-	-	3	17	-	2	-	-	19		22
04 ERFURT	7	1	-	-	1	-	9	36	1	1	2	-	40		49
05 FRANKFURT/ODER	1	2	-	-	-	-	3	9	1	4	1	1	16		19
06 GERA	2	1	1	-	1	-	5	17	-	1	1	-	19		24
07 HALLE	1	3	-	-	-	-	4	8	1	-	1	-	10		14
08 KARL-MARX-STADT	2	3	2	-	5	-	12	2	-	3	2	-	7		19
09 LEIPZIG							0	11	-	-	1	-	12		12
10 MAGDEBURG	2	-	-	-	-	-	2	11	-	2	1	1	15		17
11 NEUBRANDENBURG	1	2	3	-	1	-	7	14	1	1	1	-	17		24
12 POTSDAM	1	-	-	-	-	-	1	2	-	-	-	-	2		3
13 ROSTOCK	2	2	2	-	1	-	7	42	1	2	-	-	45		52
14 SCHWERIN	2	1	1	-	1	1	6	15	-	2	1	1	19		25
15 SUHL	-	2	-	-	-	-	2	15	-	1	-	-	16		18
TOTAL	21	18	11	0	10	1	61	200	5	19	11	3	238	0	299
PER CENT	7.0	6.0	3.7	0.0	3.3	0.3	20.4	66.9	1.7	6.4	3.7	1.0	79.6	0.0	100.0

DEU

FEDERAL REPUBLIC OF GERMANY

R A B I E S C A S E S

1. 4.86 - 30. 6.86

LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL	
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS			TOTAL
010	SCHLESWIG-HOLSTEIN							0						0		0
020	HAMBURG							0						0	1	1
031	BRAUNSCHWEIG	-	3	-	-	2	-	5	61	2	3	4	-	70		75
032	HANNOVER	-	1	3	1	7	-	12	19	-	-	-	-	19		31
033	LUENEBURG							0	5	-	1	-	-	6		6
034	WESER-EMS	-	-	1	-	-	-	1	1	-	-	-	-	1		2
040	BREMEN							0						0		0
051	DUESSELDORF							0	5	-	-	-	-	5		5
053	KOELN	1	-	7	1	6	-	15	33	1	1	3	-	38		53
055	MUENSTER							0						0		0
057	DETMOLD	1	4	1	1	1	-	8	47	1	4	5	-	57		65
059	ARNSBERG	-	-	6	2	5	-	13	61	3	3	6	1	74		87
061	DARMSTADT	-	-	1	-	1	-	2	38	-	2	1	1	42		44
062	KASSEL	-	9	11	2	1	-	23	51	2	5	4	-	62		85
071	KOBLENZ	-	1	1	-	1	-	3	14	-	1	2	-	17		20
072	TRIER	2	2	3	1	5	-	13	11	1	-	1	2	15		28
073	RHEINHESSEN-PFALZ	-	1	-	-	-	-	1	16	2	-	-	-	18		19
081	STUTTGART	-	1	3	-	2	-	6	29	2	-	6	-	37		43
082	KARLSRUHE							0	22	1	1	1	-	25		25
083	FREIBURG	1	2	1	2	-	-	6	82	15	5	5	-	107		113
084	TUEBINGEN	1	2	5	-	3	-	11	60	2	4	2	-	68		79
091	OBERBAYERN	-	1	1	-	-	-	2	42	1	2	1	-	46		48
092	NIEDERBAYERN	-	1	-	-	-	-	1	26	1	-	1	-	28		29
093	OBERPFALZ	1	1	-	-	1	-	3	62	5	1	1	-	69		72
094	OBERFRANKEN	3	1	-	-	1	-	5	31	1	1	-	-	33		38
095	MITTELFRANKEN	-	1	-	-	-	-	1	14	-	1	-	-	15		16
096	UNTERFRANKEN	-	1	-	-	-	-	1	25	1	1	-	-	27		28
097	SCHWABEN	1	-	2	-	-	-	3	49	5	3	2	-	59		62
100	SAARLAND	-	2	2	-	2	-	6	5	-	1	4	-	10		16
110	BERLIN (WEST)							0						0		0
TOTAL		11	34	48	10	38	0	141	809	46	40	49	4	948	1	1090
PER CENT		1.0	3.1	4.4	0.9	3.5	0.0	12.9	74.2	4.2	3.7	4.5	0.4	87.0	0.1	100.0

FRA FRANCE

## RABIES CASES

1. 4.86 - 30. 6.86

LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS		
01 AIN							0	1	-	-	-	-	1		1
02 AISNE		1	1	-	-	-	2	20	-	-	-	-	20		22
08 ARDENNES		-	1	-	-	-	1	1	-	-	-	-	1		2
10 AUBE							0	51	1	2	-	-	54		54
21 COTE D'OR		1	-	1	-	2	4	12	-	-	-	-	12		16
25 DOUBS		1	4	-	2	-	7	41	2	2	2	1	48		55
39 JURA							0	20	-	-	-	-	20		20
51 MARNE		-	1	-	-	-	1	5	-	-	-	-	5		6
52 MARNE (HAUTE)		1	1	6	-	2	10	13	-	-	1	-	14		24
53 MAYENNE		-	3	-	-	-	3						0		3
54 MEURTHE-ET-MOSELLE		-	2	3	-	3	8	23	-	-	-	-	23		31
55 MEUSE		2	3	3	-	5	13	27	-	-	1	-	28		41
57 MOSELLE		-	-	-	-	1	1	10	-	1	-	-	11		12
58 NIEVRE							0	1	-	-	-	-	1		1
60 OISE		4	-	1	-	-	5	14	-	-	-	-	14		19
67 RHIN (BAS)		-	1	-	-	1	2	1	-	-	-	-	1		3
68 RHIN (HAUT)		3	3	-	-	-	6	36	1	2	3	-	42		48
70 SAONE (HAUTE)		1	2	1	1	8	13	26	-	2	1	-	29		42
74 SAVOIE (HAUTE)		-	1	-	-	-	1	1	-	1	-	-	2		3
77 SEINE-ET-MARNE		-	4	-	-	-	4	21	-	1	-	-	22		26
80 SOMME							0	3	-	-	-	-	3		3
88 VOSGES		3	-	2	-	12	17	31	-	1	-	-	32		49
89 YONNE		2	-	-	-	3	6	40	-	-	-	-	40		46
90 TERR.DE BELFORT							0	14	-	-	-	-	14		14
91 ESSONNE		2	1	-	-	-	3	8	-	1	-	-	9		12
93 SEINE SAINT DENIS							0	1	-	-	-	-	1		1
94 VAL DE MARNE		2	1	-	-	-	3	36	-	-	-	-	36		39
95 VAL D'OISE		2	-	-	-	-	2	7	-	-	-	-	7		9
TOTAL		25	29	17	3	37	112	464	4	13	8	1	490	0	602
PER CENT		4.2	4.8	2.8	0.5	6.1	18.6	77.1	0.7	2.2	1.3	0.2	81.4	0.0	100.0



HUN HUNGARY

## RABIES CASES

1. 4.86 - 30. 6.86

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 BUDAPEST	-	2	-	-	-	1	0	2	-	-	-	-	2		2
02 BARANYA	-	-	-	-	-	-	3	8	-	-	-	-	8		11
03 BACS-KISKUN	1	-	-	-	-	-	1	2	-	-	-	-	2		3
04 BEKES	1	-	-	-	-	-	1	15	-	-	-	-	15		16
05 BORSOD-ABAUJ-ZEMPLEN	-	-	-	-	-	-	0	2	-	-	-	-	2		2
06 CSONGRAD	-	-	-	-	-	-	0	2	-	-	-	-	2		2
07 FEJER	3	-	2	-	-	-	5	13	-	-	-	-	13		18
08 GYOER-SOPRON	1	1	-	-	-	-	2	16	-	1	-	-	17		19
09 HAJDU-BIHAR	1	1	-	-	-	-	2	3	-	-	-	-	3		5
10 HEVES	-	-	1	-	-	-	1	3	-	-	-	-	3		4
11 KOMAROM	-	-	-	-	-	-	0	5	-	-	-	-	5		5
12 NOGRAD	-	-	1	-	-	-	1	2	-	-	-	-	2		3
13 PEST	1	-	-	-	-	-	1	6	-	-	-	-	6		7
14 SOMOGY	1	2	-	-	-	-	3	16	-	-	-	1	17		20
15 SZABOLCS-SZATMAR	-	1	2	-	-	-	3	3	-	-	-	-	3		6
16 SZOLNOK	1	-	-	-	-	-	1	1	-	-	-	-	1		2
17 TOLNA	1	-	-	-	-	-	1	6	-	-	1	-	7		8
18 VAS	-	-	-	-	-	-	0	7	-	-	-	-	7		7
19 VESZPREM	2	-	-	-	-	-	2	17	-	-	-	-	17		19
20 ZALA	-	-	-	-	-	-	0	13	-	-	-	-	13		13
TOTAL	13	7	6	0	0	1	27	142	0	1	1	1	145	0	172
PER CENT	7.6	4.1	3.5	0.0	0.0	0.6	15.7	82.6	0.0	0.6	0.6	0.6	84.3	0.0	100.0

POL POLAND

## RABIES CASES

1. 4.86 - 30. 6.86

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
05	BIALYSTOK							0	-	-	-	-	1	1		1
07	BIELSKO-BIALA							0	1	-	-	-	-	1		1
09	BYDGOSZCZ	1	5	-	-	-	1	7	6	-	-	-	-	6		13
11	CHELM							0	1	-	-	-	-	1		1
15	CZESTOCHOWA							0	2	-	-	-	-	2		2
17	ELBLAG							0	1	-	-	-	1	2		2
19	GDANSK	-	3	1	-	-	-	4	3	-	-	-	1	4		8
21	GORZOW	1	-	-	-	-	-	1	5	-	-	-	-	5		6
23	JELENIA GORA	-	1	-	-	-	-	1	10	-	-	-	-	10		11
27	KATOWICE	1	-	-	-	-	-	1	3	-	-	-	-	3		4
29	KIELCE							0	-	1	-	-	-	1		1
33	KOSZALIN							0	1	-	-	1	-	2		2
37	KROSNO							0	1	-	-	-	-	1		1
39	LEGNICA							0	1	-	-	-	-	1		1
41	LESZNO							0	2	-	1	-	-	3		3
43	LUBLIN	-	1	-	-	-	-	1						0		1
49	NOWY SACZ							0	1	-	-	-	-	1		1
53	OPOLE	2	3	-	-	-	-	5	28	-	-	1	-	29		34
57	PILA	-	-	2	-	-	-	2	4	-	-	-	1	5		7
63	POZNAN	2	-	1	-	-	-	3	8	-	1	1	-	10		13
67	RADOM							0	1	-	-	-	-	1		1
79	SUWALKI							0	1	-	-	-	-	1		1
81	SZCZECIN	1	1	1	-	-	-	3	4	-	-	2	-	6		9
83	TARNOBRZEG	-	1	-	-	-	-	1	1	-	-	-	-	1		2
87	TORUN	1	-	-	-	-	-	1						0		1
89	WALBRZYCH							0	3	-	-	-	-	3		3
93	WROCLAW							0	4	-	-	-	-	4		4
95	ZAMOSC	-	1	-	-	-	-	1						0		1
97	ZIELONA GORA	1	-	-	-	-	-	1	9	-	-	-	-	9		10
TOTAL		10	16	5	0	0	1	32	101	1	2	5	4	113	0	145
PER CENT		6.9	11.0	3.4	0.0	0.0	0.7	22.1	69.7	0.7	1.4	3.4	2.8	77.9	0.0	100.0

## R A B I E S C A S E S

1. 4.86 - 30. 6.86

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
<b>ROM ROMANIA</b>																
02	ARAD	1	1	-	-	-	-	2						0		2
04	BACAU	-	-	-	-	2	-	2	6	-	-	-	-	6		8
20	GORJ	-	-	1	-	-	-	1	3	-	-	-	-	3		4
22	HUNEDOARA							0	-	1	-	-	-	1		1
28	NEAMT	1	1	-	-	-	-	2	2	-	-	-	-	2		4
32	SALAJ							0	2	-	-	-	-	2		2
34	SUCEAVA	-	1	1	-	-	-	2						0		2
40	VRANCEA							0	1	-	-	-	-	1		1
TOTAL		2	3	2	0	2	0	9	14	1	0	0	0	15	0	24
PER CENT		8.3	12.5	8.3	0.0	8.3	0.0	37.5	58.3	4.2	0.0	0.0	0.0	62.5	0.0	100.0
<b>SWI SWITZERLAND AND LIECHTENSTEIN</b>																
01	AARGAU	-	-	-	-	1	-	1	3	-	-	-	-	3		4
06	BERN							0	1	-	-	-	-	1		1
10	GRAUBUENDEN							0	1	-	-	-	-	1		1
12	NEUCHATEL							0	1	-	-	-	-	1		1
15	SCHAFFHAUSEN							0	-	2	-	-	-	2		2
22	VAUD	-	4	-	-	1	-	5	23	-	5	-	1	29		34
23	VALAIS							0	2	-	-	-	-	2		2
26	JURA	-	-	1	-	-	-	1						0		1
TOTAL		0	4	1	0	2	0	7	31	2	5	0	1	39	0	46
PER CENT		0.0	8.7	2.2	0.0	4.3	0.0	15.2	67.4	4.3	10.9	0.0	2.2	84.8	0.0	100.0
<b>YUG YUGOSLAVIA</b>																
10	SR BOSNA I HERCEGOVIN	2	-	1	-	-	-	3	8	-	-	-	-	8		11
30	SR HRVATSKA	-	1	-	-	1	-	2	48	1	-	1	-	50		52
50	SR SLOVENIJA							0	18	-	-	-	-	18		18
61	SAP VOJVODINA	2	1	-	-	-	-	3	6	-	-	-	-	6		9
TOTAL		4	2	1	0	1	0	8	80	1	0	1	0	82	0	90
PER CENT		4.4	2.2	1.1	0.0	1.1	0.0	8.9	88.9	1.1	0.0	1.1	0.0	91.1	0.0	100.0

TUR

TURKEY

RABIES CASES

1. 4.86 - 30. 6.86

LOCATION		DOMESTIC ANIMALS						WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS		
001	ADANA	13	2	5	-	1	1	22						0	22
003	AFYON	1	-	1	-	-	-	2						0	2
005	AMASYA	5	-	1	-	-	-	6						0	6
006	ANKARA	1	-	-	-	-	-	1						0	1
007	ANTALYA	2	-	1	-	-	-	3						0	3
009	AYDIN	9	-	2	-	1	-	12						0	12
010	BALIKESIR	8	-	2	-	-	1	11						0	11
011	BILECIK	1	-	1	-	1	1	4						0	4
014	BOLU	6	1	1	-	-	-	8						0	8
016	BURSA	15	1	1	1	-	-	18						0	18
017	CANAKKALE	1	-	-	-	-	-	1						0	1
018	CANKIRI	1	-	-	-	-	-	1						0	1
019	CORUM	2	-	-	-	-	-	2						0	2
020	DENIZLI	7	-	-	-	-	-	7	-	-	-	-	1	1	8
021	DIYARBAKIR	2	-	2	-	-	-	4						0	4
022	EDIRNE	1	-	-	-	-	-	1						0	1
025	ERZURUM	-	1	-	1	-	-	2						0	2
027	GAZIANTEP	3	-	1	-	-	-	4						0	4
028	GIRESUN	2	-	-	1	-	-	3						0	3
029	GUEMUESHANE							0	-	-	-	-	1	1	1
030	HAKKARI	1	-	-	-	-	-	1						0	1
031	HATAY	2	-	-	-	-	-	2						0	2
033	ICEL	2	1	-	-	-	-	3						0	3
034	ISTANBUL	12	-	2	-	1	-	15						0	15
035	IZMIR	31	6	3	-	2	1	43	1	-	-	-	4	5	48
037	KASTAMONU	4	-	2	-	-	-	6						0	6

TUR 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
038 KAYSERI	3	-	3	-	-	-	6						0	6	
039 KIRKLARELI	-	1	-	-	-	-	1						0	1	
040 KIRSEHIR	3	-	-	-	-	-	3						0	3	
041 KOCAELI	10	-	1	-	-	-	11						0	11	
042 KONYA	8	1	1	-	1	-	11						0	11	
043 KUETAHYA	6	-	1	-	-	-	7						0	7	
044 MALATYA	1	-	-	-	-	-	1						0	1	
045 MANISA	12	1	2	-	-	-	15	-	-	-	-	1	1	16	
046 KAHRAMAN MARAS	2	1	3	-	1	-	7						0	7	
047 MARDIN	2	-	-	-	-	-	2						0	2	
048 MUGLA	2	-	1	-	1	-	4						0	4	
051 NIGDE	2	-	-	-	-	-	2						0	2	
052 ORDU	4	-	-	-	1	-	5	-	-	-	-	1	1	6	
053 RIZE	1	-	1	-	-	-	2						0	2	
054 SAKARYA	17	-	2	-	-	-	19						0	19	
055 SAMSUN	10	1	1	-	-	-	12						0	12	
057 SINOP	5	-	4	-	-	-	9						0	9	
058 SIVAS	4	-	-	-	-	-	4						0	4	
060 TOKAT	3	-	1	-	-	-	4						0	4	
064 USAK	14	-	5	-	1	-	20						0	20	
066 YOZGAT	3	-	1	-	-	-	4						0	4	
067 ZONGULDAK	6	-	2	-	-	-	8						0	8	
TOTAL	250	17	54	3	11	4	339	1	0	0	0	8	9	0	348
PER CENT	71.8	4.9	15.5	0.9	3.2	1.1	97.4	0.3	0.0	0.0	0.0	2.3	2.6	0.0	100.0

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WHO Coll. Centre  
Tuebingen / DEU

Rabies Cases Turkey  
2nd Quarter 1986  
348 cases reported







ISL  
(rabies free)



Rabies Cases Europe  
2nd Quarter 1986  
3582 cases reported

USR  
(no data)

POL  
(145)

DEN  
(3)

NET  
(0)

DDR  
(299)

GBR  
(rabies free)

BEL  
(62)

DEU  
(1090)

CZE  
(323)

FRA  
(602)

SWI  
(46)

AUT  
(348)

HUN  
(172)

ROM  
(24)

ITA  
(17)

YUG  
(90)

BUL  
(rabies free)

POR  
(0)

SPA  
(rabies free)

ALB  
(no data)

GRE  
(0)

TUR  
(348)

0 50 100 km

• bat rabies