## RABIES BULLETIN EUROPE Vol. 4/Nr. 4/1980

## CONTENTS

		Page
1.	INTRODUCTION	1
	1.1 Contents of the Bulletin	1
2.	RABIES IN EUROPE, 4TH QUARTER 1980	1
	2.1 - 2.25 Situation in Individual Countries	2 - 9
3.	MISCELLANEOUS	10
	3.1 Rabies in Europe, 1980	10
	3.2 Rabies Incidence in the European Region, 1977-1980	11
	3.3 Rabies in Man: 1) Yugoslavia, 2) France, 3) Hongkong	15
	3.4 Rabies Vaccination in the Netherlands	16
4.	RABIES CASE DATA	
	4.1 Table 1, Europe, 4th Quarter 1980	17
	4.2 Table 2, Europe 1980	18
	4.3 Table 3, Rabies Incidence Rates (% total) for Individual	
	Animal Species and Totals of 10 European Countries	19
	Ranking Highest in 1980 4.4 Table 4, Europe, 4th Quarter 1980 'Other Animal Species'	20
	4.5 Table 5, Europe 1980 'Other Animal Species'	.21
	4.6 Tables, European Countries in 4th Quarter 1980 and	
	Czechoslovakia, Rumania and the European Part	
	of the USSR in 3rd Quarter 1980	22 - 36
5.	LIST OF CONTRIBUTORS	37 - 38
C	ANDER 1. Man of Dabies Gases in Europe. Ath Outstand 1000	
6.	ANNEX 1: Map of Rabies Cases in Europe, 4th Quarter 1980	
	ANNEX 2: Map of Rabies Cases in Turkey, 4th Quarter 1980	

The RABIES BULLETIN EUROPE is compiled and edited by the

WHO Collaborating Centre for Rabies Surveillance and Research Dr. L. G. S c h n e i d e r , Chief Helen C. J a c k s o n,Assistant Chief K.-P. H o h n s b e e n, Statistician

at the Federal Research Institute for Animal Virus Diseases

D 7400 TUEBINGEN, Postfach 1149 Federal Republic of Germany

Tel. 07071 - 603 332 TELEX: 07 26 28 46

The BULLETIN is sponsored by the WORLD HEALTH ORGANIZATION in Geneva, and the INTERNATIONAL OFFICE OF EPIZOOTICS in Paris.

The financial support of the WHO Centre by the BUNDESMINISTERIUM FUER JUGEND, FAMILIE UND GESUNDHEIT, Bonn-Bad Godesberg, is gratefully acknowledged.

## 1. INTRODUCTION

#### 1.1 Contents of the Bulletin

This issue describes the reported rabies position in Europe for the fourth quarter 1980. The situation is described in general under 2 and for individual European countries under 2.1 to 2.25. Case data reported to the Centre are tabulated under 4.

Data for the 4th quarter were not available from the USSR. The completed data for the 3rd quarter 1980 from Rumania is described under 2.19 and rabies in Czechoslovakia in both the 3rd and 4th quarters under 2.4. Rabies in the European part of the USSR in the 3rd quarter is described under 2.25. This delayed data is tabulated under 4.

A review of the rabies situation in Europe during 1980 is given in section 3. In addition, rabies incidence in European countries, reported to the Centre since 1977 has been prepared graphically. Although total rabies incidence in Europe as a whole in the corresponding quarters of these years is not markedly different, the evolution of the epizootic and the percentage involvement of the fox and other species can be quite different in individual countries and this is clearly seen with the plotted data.

During 1980, there have be 3 cases of rabies in man in Europe. Human rabies cases are reported in section 3. Finally there is a note about rabies prophylaxis in the Netherlands.

The geographic distribution of rabies incidence in Europe during the 4th quarter 1980 is shown on the maps in the Annex.

Data used in the tables or referred to in the text is always the most up to date possessed by the Centre. Due to delayed reports and corrections, figures concerning earlier data are not always the same as those published in the relevant Bulletin.

## 2. RABIES IN EUROPE, 4TH QUARTER 1980

Table 1 on page 17 summarises the rabies case data reported to the Centre for the period October 1st to December 31st 1980.

A total of 4689 rabies cases were reported for the 4th quarter. An increase of 536 cases (12.9%) was recorded compared with the 3rd quarter.

Rabies incidence increased in all countries except Austria where the number of cases dropped from 166 to 112, Rumania, where the total was 1 case less and Denmark where the number of cases remained at 2. In Czechoslovakia, The German Democratic and German Federal Republics, Hungary and Switzerland the increase was less than 10%. France's total increased by 36%, Poland's by 17%, Turkey's by 27% and Yugoslavia's by 94%. Belgium and Luxembourg also reported large increases - from 2 to 11 and from 1 to 13 cases respectively.

There were 3324 cases (70.9%) in wildlife, 1364 (29.1%) in domestic animals and 1 case of rabies in man. Of the wildlife, there were 2960 cases in foxes (63.1% of total cases), 150 in mustelids and 165 in deer. Of the domestic animals, 460 cases (9.8%) were reported in dogs, 239 (5.1%) in cats and 510 in cattle (10.9%). 81% of all dog rabies cases were registered in Turkey and Turkey and the Federal Republic Germany reported 70% of the rabies in cattle.

Finland, the United Kingdom, Portugal and Sweden continued to remain rabies-free and no cases were reported from Bulgaria, Greece, the Netherlands or Spain. Norway again reported a rabid arctic fox. One case of rabies in man was registered in France for this reporting period. In addition two rabies cases in man earlier in the year were reported from Yugoslavia.

In comparison with the 4th quarter of 1979 there is a difference of only 13 cases in the incidence of reported cases, 4676 in 1979 and 4689 in 1980.

## Individual country reports are as follows:

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

A total of 112 rabies cases were recorded in Austria during the fourth quarter 1980. There were 108 cases in wildlife and 4 in domestic animals. The number of animals sent in for examination fell by 46% (from 4541 in the 3rd quarter to 2088 in the 4th quarter) whereas the fraction of cases found positive increased from 0.037 in the 3rd quarter to 0.046 in the 4th quarter.

In the Bundesland Steiermark (Styria) rabies cases in Liezen, Leoben, Bruck an der Mur, Graz Umgebung and Mürzzuschlag indicate a residual zone of the former 'front-wave'. In addition a single case of rabies occurred in Deutschlandsberg, near the southern frontier with Yugoslavia. In the neighbouring Bundesland Oberösterreich (Upper Austria) 5 cases of rabies were recorded in the district Steyr-Land. In Niederösterreich (Lower Austria) the district of Scheibbs was infected in the fourth quarter (4 wildlife cases) and single cases occurred within the district of Gmünd, near the northern frontier with Czechoslovakia and also in Waidhofen an der Ybbs.

In Burgenland two isolated cases were recorded in the districts of Oberpullendorf and Oberwart. In Kärnten (Carinthia) a total of 12 dispersed cases were found in the districts of Völkermarkt, Klagenfurt-Land, Villach-Land, Spittal an der Drau and Hermagor.

In Tirol, 24 rabies cases were recorded in Landeck, 7 in Kufstein and isolated cases in Imst and Innsbruck-Land. In the Bundesland, Vorarlberg, a cluster of rabies cases were recorded in the district Dornbirn; in the districts Bludenz and Bregenz only sporadic cases were observed.

In 1980, a total of 816 rabies cases were recorded in Austria. In 1977, 3058 cases were recorded, in 1978, 4044 cases and in 1979, 2020 cases. However, even the surprisingly steady annual decrease of positive cases (as a percentage of the yearly total), of between 50 and 60% over the years 1978, 1979 and 1980, does not permit an optimistic prognosis. On the contrary, the classic recovery of the fox population and in consequence a massive and tarrying reinfection of wildlife have to be expected.

## 2.2 Rabies in Belgium (BEL) by R. Depierreux

In the course of the fourth quarter 1980, 11 rabies cases were registered. In the 3rd, 2nd and 1st quarters, 2, 23 and 11 cases respectively were reported. In comparison with 1979 the number of cases has increased; a total of 25 in 1979 and 47 in 1980.

This recrudescence, however occurred mainly in the first half of 1980 when 34 cases were diagnosed. The number of cases during the second half year were almost the same in 1979 and 1980; 12 in 1979 and 13 in 1980. One can perhaps consider that the situation has changed little.

Comparison of the infected regions of Belgium in the last three years, shows that rabies incidence is confined principally to the provinces Liège and Luxembourg near to the border with the German Federal Republic and the Grand Duchy of Luxembourg.

In order to reduce the fox population and to attempt to reach an optimal population density, a new fox den gassing campaign is envisaged for the spring of 1981 in the whole of the infected region. In addition there is a bounty of 200 Belgian francs until and 500 Belgian francs from the third month of the year for all foxes killed in the region to the south of the line of the Sambre and Meuse rivers.

## 2.3 Rabies in Bulgaria (BUL)

No cases were registered during the reporting period.

## 2.4 Rabies in Czechoslovakia (CZE) by Dr. Neumann

## i) July - September 1980

The incidence of rabies during the 3rd quarter 1980 was 233, a decrease of 22.6% compared with the 2nd quarter when 301 cases were reported. The total of confirmed cases included 204 foxes, 4 dogs, 18 cats, 1 badger, 2 pole cats, 1 marten, 2 roe deer and a mouse.

The following districts were newly affected or re-affected by rabies; Praha-východ (Central Bohemia), Prachatice (Southern Bohemia), Plzen-sever (West Bohemia), Most (North Bohemia), Frýdex Mistek (North Moravia), Nitra (West Slovakia) and Michalovce (East Slovakia).

## ii) October - December 1980

The number of rabies cases in Czechoslovakia during the 4th quarter 1980 (243) was similar to the 4th quarter 1979 (250). 227 cases (93.4%) of the total were in wild life and of these, 219 (90.1% of total) were cases of fox rabies. Rabies in domestic animals was diagnosed primarily in cats (10 cases).

New infections of rabies were reported in the districts of Strakonice (South Bohemia), Semily (East Bohemia), Senica and Nové Zámky (West Slovakia), Ziar nad Hronon (Central Slovakia) Kosice and Roznava (East Slovakia). Recurrent infections were ascertained in Trutnov (East Bohemia) and Trencin (West Slovakia). Czechoslovakia recorded its highest incidence of rabies in 1980. 1212 cases were reported an increase of 54% on the total in 1979 (787 reported cases). The border districts of West and North Bohemia continue to be the most heavily infected. Rabies was also found to be spreading to the interior of the Central Region i.e. from the South Bohemia Province to the districts of Benesov and Kutná Hora and from the North Bohemian Region via Melník and Mladá Boleslav to the outskirts of Prague. In East Bohemia rabies has spread from Svitavy to Blansko in South Moravia and from there to the outskirts of Brno.

No case of rabies in man was reported.

## 2.5 Rabies in Denmark (DEN) by S. Møllgaard

Two cases of rabies were reported during the fourth quarter 1980. In October there was one incidence of rabies in a fox and in December one incidence in a cow. The fox was killed in the area near the Danish-German border where other recent cases of rabies in Denmark have been diagnosed; the cow was infected while grazing.

Poisoning of foxes was continued until the 15th November. Gassing of fox dens in a narrow belt along the Danish-German border was carried out in November and December.

A total of 37 rabies cases in 1980 compares favourably with the totals of 163 in 1978 and 164 in 1979. 33 (89%) cases of the 1980 total occurred in the first 6 months of the year.

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

533 rabies incidences were reported from the German Democratic Republic in the 4th quarter 1980, 6 more than during the 3rd quarter. There were 411 cases in wild animals; 363 (68.1% of total) in foxes, and 122 cases in domestic animals; 37 (6.9%) in cats, 17 (3.2%) in dogs and 62 (11.7%) in cattle and sheep.

The geographic distribution of cases was little changed; the highest concentrations being in the Bezirke Suhl and Karl-Marx-Stadt. As in earlier quarters, cases of dog and/or cat rabies occurred sporadically in almost every Bezirk.

During 1980, a total of 2056 cases were reported, an increase of 38.6% compared with 1979 (1483 recorded cases). In contrast to 1979, when the number of cases in the 2nd and 3rd quarters was much lower than in the 1st and 4th quarters, the number of cases in each quarter was around 500 (461 to 535) in 1980.

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

1678 rabies cases were diagnosed in the German Federal Republic during the fourth quarter 1980, 96 cases or 6.1% more than during the third quarter. There were 1139 cases (67.9%) in foxes, 80 (4.7%) in mustelids, 113 (6.7%) in deer, 95 (5.6%) in cats and dogs and 190 (11.3%) in cattle. The total and percentage involvement of animal species were similar to that in the fourth quarter 1979.

In most Regierungsbezirke recorded rabies incidence was little changed from the previous quarter. Exceptions were Trier where the number of cases increased from 49 to 80 and rabies spread northwards in the Kreise Trier-Saarburg and Bernkastel-Wittlich. In Detmold, Kreis Höxter recorded an increase of 24 cases from 7 to 31. The Regierungsbezirk Freiburg in Baden-Württemberg recorded an increase of 62 cases from 134 to 196; the increase being spread throughout the already affected Kreise. In Bavaria two Regierungsbezirke recorded a noticeable reduction in recorded cases, in Oberpfalz from 72 to 45 and in Oberbayern from 152 to 134. Finally, in Kreis Würzburg (Unterfranken) rabies incidence increased from 6 to 25 cases.

A total of 6603 rabies cases were registered in 1980 compared with 5089 in 1979 (a 29.7% increase), 3762 in 1978 and 4896 in 1977. In 1979 there were 3815 cases in foxes (75% of total) and in 1980, 4895 cases (74.1%) in foxes. Saarland, southern parts of Rheinland-Pfalz and southern Baden-Württemberg reported high numbers of cases throughout the year.

#### 2.8 Finland (FIN)

The country remained rabies-free.

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

A total of 374 cases in animals were registered during the fourth quarter 1980, comprising 113 domestic animals and 261 wild animals (250 foxes). In the three preceding quarters there were respectively 589, 290 and 275 cases recorded in France. One case of rabies in man was also registered. It occurred in a boy who had been bitten by a dog while in Tunisia.

Compared with the 4th quarter 1979, when 433 cases were registered there has been a reduction of incidence of 13.6%. Compared with the whole of 1979 (1705 reported cases) there has, for 1980 been a reduction of 5.0%.

During the fourth quarter 1980, two rabies cases (in foxes) were recorded from the department Seine-Maritime; the thirtieth department to be affected by rabies. This advance in France of the front-line of the epizootic into areas near the coast constitutes an increased threat to the countries across the English Channel.

#### 2.10 Rabies in Greece (GRE)

No cases of rabies were reported during the 4th quarter 1980.

#### 2.11 United Kingdom (GBR)

The country remained rabies-free.

## 2.12 Rabies in Hungary (HUN)

204 cases of rabies were registered in Hungary during the fourth quarter 1980; 186 incidents (91.2%) in foxes and 13 (6.3%) in dogs or cats. Rabies was also diagnosed in a wild cat.

Compared with the third quarter there has been an increase of 13 cases (from 191 to 204 cases). Geographic incidence was also little changed with some komitates recording a small increase and others a small decrease.

Rabies incidence in Hungary has fallen from 1282 cases in 1979 to 918 in 1980, a reduction of 28.3%. As in 1979, a peak in the number of cases was recorded in the first quarter 1980 (381 cases), followed a drop of more than 50% to 142 cases in the second quarter.

## 2.13 Rabies in Italy (ITA)

by A. Mantovani

5 cases of rabies were reported from Italy in the 4th quarter 1980; 2 cases in province Udine and 3 in Bolzano. Compared with 1979 when 79 cases were reported, only 12 cases were reported in 1980 - a reduction of 85%.

Province	1979	1980
Udine	55	9
Belluno	14	-
Bolzano	10	3

In the provinces Bolzano and Belluno 0.25 fox/km<sup>2</sup>/yr were killed in 1980. The 'Istituto Zooprofilattico Sperimentale delle Venezie' Padua consider that this figure can be translated to 0.75 fox/km<sup>2</sup>/yr since foxes are concentrated in only 1/3 of the territory - the valley bottoms and inhabited areas. The Institute believes that such low fox numbers are responsible for the disappearance of rabies (the 3 cases in Bolzano during the 4th quarter 1980 are considered a reinfection). It also believes that in rabies infected areas the reduction of fox numbers may be a consequence of the death of foxes due to rabies. It is concluded that when 0.75 fox/km<sup>2</sup>/year are killed in areas where the fox is common, rabies can be eliminated.

In Udine province however, the experience was different. Fox capture was about 1/10th of that in Bolzano or Belluno and rabies not only persisted but continued to advance. In addition animals sent for laboratory analysis were rare.

## 2.14 Rabies in Luxembourg (LUX) by A. Schiltges

In the 4th quarter 1980, 13 rabies cases were identified in the Grand Duchy of Luxembourg. There were 8 cases in foxes and 5 in cattle. The south east of the country was principally affected by rabies occurrence.

23 rabies cases, 17 in foxes and 6 in cattle, were diagnosed in 1980; 23 rabies cases were likewise diagnosed in 1979. A total of about 100 animals were examined for rabies in 1980, mainly foxes (33), cats (30) and cattle (16).

#### 2.15 Netherlands (NET)

The country continued to remain rabies-free.

#### 2.16 Rabies in Norway (NOR)

During the fourth quarter 1980, 1 case of rabies in a polar fox was identified on the Island of Svalbard.

A total of 17 rabies cases were registered on the Island of Svalbard in 1980, 13 in polar fox, 3 in reindeer and 1 in a seal. The island is nearly 1000 km north of mainland Norway and largely uninhabited; it is therefore impossible to say when or how the outbreak started though it is supposed that rabies was brought from the arctic islands or mainlands east or west of Svalbard by polar bear or polar fox.

## 2.17 Rabies in Poland (POL)

During the 4th quarter 1980, 263 rabies cases were registered. 196 cases (74.5%) were recorded in wildlife and 67 (25.5%) in domestic animals. The incidence in the fox was 173 (65.8%), in dogs 9 (3.4%) and in cats 31 (11.8%).

There has been an increase of 39 cases or 17.4% compared with the 3rd quarter. Departments in the south west, west and north of the country generally reported more incidents than in the east. The largest increase occurred in Warszawa where the number of cases increased from 3 to 22.

A total of 944 cases were recorded in Poland in 1980, 95 cases or 9.1% fewer than in the preceding year. 17 racoon dogs, <u>Nyctereutes procynoides</u> were recorded as rabid in 1980; all cases being in six departments in the extreme north and north east of the country near the borders with Lithuania and Belo-Russia in the Union of Soviet Socialists Republics.

#### 2.18 Portugal (POR)

The country remained rabies-free.

#### 2.19 Rabies in Rumania (RUM)

(1) <u>3rd Quarter:</u> A total of 15 cases of rabies were registered in the third quarter 1980, 4 foxes, 1 badger and 2 unspecified wild animals, 1 dog, 1 cat, 4 cattle and 2 sheep. Recorded rabies incidence was geographically sporadic.

(2) <u>4th quarter:</u> 14 rabies cases were reported, 6 foxes, 1 dog, 2 cats, 4 cattle and 1 sheep. Most cases were reported from north and central regions of Rumania but were geographically sporadic.

## 2.20 Rabies in Spain (SPA)

No cases were registered during the reporting period.

#### 2.21 Sweden (SWE)

The country remained rabies-free.

## 2.22 Rabies in Switzerland (SWI) by A. Wandeler

During the last quarter of 1980 the Swiss rabies diagnostic centre received 1484 animals for examination, of which 287 were positive for rabies. There were more rabies cases among domestic animals (23%) compared with the preceding quarter with only 15%. This relative increase in domestic animals is primarily the result of reduced submissions of wild animals from areas where wild life rabies is known to be prevalent.

Geographic distribution of reported cases showed little change; the most noticeable changes being an increase in Canton Genf in the south west near the border with France and an absence of cases from Schaffhausen in the north of the country.

In the 4th quarter 9 people were bitten by proven rabid animals, all of them rabid cats.

A total of 1190 rabies cases were registered in 1980, 178 fewer than in the preceding year (but approximately 150 cases more than in either 1977 or 1978). The most marked alteration in geographic distribution has been the reinvasion and high concentration of reported cases in Jura.

### 2.23 Rabies in Turkey (TUR)

612 cases of rabies were reported in Turkey in the 4th quarter 1980. There were 8 cases in wildlife species and 604 in domestic animals; 372 (60.8% of total) in dogs, 40 (6.5%) in cats and 168 (27.5%) in cattle.

An increase of 129 cases (26.7%) was recorded in comparison with the third quarter though the relative number of cases in each species showed little change. Similarly, the geographic distribution of rabies was very like that in the third quarter with provinces bordering the Black Sea recording high concentrations of cases - Samsun, Ordu, Giresun, Sakarya and Istanbul. Provinces in the south and east of Turkey reported only sporadic cases.

A total of 2088 incidents were registered in 1980, an increase of 30.9% over the 1979 figure.

#### 2.24 Rabies in the Union of Soviet Socialists Republics (USSR)

-3rd quarter 1980- by B. Cherkasskiy

During the third quarter 1980 in the European part of USSR territory, 167 cases of rabies in animals were registered. This is less than during the previous quarter of this year (178 cases) and also less than during the third quarter of 1979 (208 cases). The greatest number of rabies cases (32.9%) was registered on the territory of the Ukrainian Soviet Socialist Republic.

## 2.25 Rabies in Yugoslavia (YUG)

From a total of 336 rabies cases reported in Yugoslavia during the 4th quarter 1980, there were 328 cases (97.6%) in wild animals and 8 in domestic animals. Foxes accounted for 321 (95.5%) incidences.

Compared with the 3rd quarter 1980 when 173 cases were reported there has been an increase in incidence of 94%; and in comparison with the 4th quarter 1979 an increase of 236%. This change in the rabies picture is due to the present heavy infection of some areas of Slovenia in the north west of Yugoslavia. In the 4th quarter 1979, 18 cases of rabies were reported from 3 districts of Slovenia whereas in the 4th quarter 1980, 246 cases were reported from 24 districts.

In Serbia and Croatia recorded rabies incidence was more sporadic than in Slovenia and almost all the rabies cases were in the northern districts i.e. northern Croatia, and Wojwodina in Serbia. In addition there were three isolated incidents of fox rabies, one in the district of Dvor in Croatia, and one each in the districts Rekovac and Aleksina in Central Serbia.

In comparison with the whole of 1979 when 418 rabies cases were registered, the rabies total in 1980 is more than double (935 cases). In Croatia the number of cases increased from 114 in 1979 to 147 in 1980 and in Serbia there was a decrease from 210 cases in 1979 to 193 in 1980. The most marked change however occurred in Slovenia where the number of cases increased from 90 in 1979 to 593 in 1980.

Two cases of rabies in man were reported in 1980.

## 3. MISCELLANEOUS

#### 3.1 Annual Summary of the Rabies Epizootic in Europe, 1980

In 1980, rabies incidence was reported from 18 countries participating in the European Rabies Surveillance System. Finland, Sweden and the United Kingdom continued rabies-free and no cases were reported from Bulgaria, Greece, the Netherlands or Portugal. Norway reported rabies incidence for the first time.

Table 2 on page 18 summarises the situation in individual countries as reported to the Centre. Data for the Union of Soviet Socialists Republics is not included in the table (631 cases in the first 9 months 1980 in unspecified animals).

A total of 18,606 rabies cases were reported in 1980. There were 4348 cases (23.4% of total) in domestic animals, 14,255 (76.6%) in wildlife and 3 cases of rabies in man. Animal species most frequently recorded rabid were foxes (68.5%), cattle (6.7%) cats (4.5%) and mustelids (4.0%). Dog rabies accounted for 9.0% of the total when the turkish data is included but only 2.0% of cases in the rest of Europe.

Compared with 1979 (see table below) rabies incidence in Europe during 1980 increased by 8.9%. The incidence in Austria, Denmark, France, Hungary, Poland and Switzerland decreased whereas in Belgium, Czechoslovakia, the German Democratic Republic, the German Federal Republic, Turkey and Yugoslavia, incidence increased. Rabies incidence in Turkey increased by 30.9% in 1980. This increase was responsible for more than half the percentage increase in domestic animals in 1980 - as the table indicates.

			All co	ountries	Excludi	ng Turkey
			1979	1980	1979	1980
Total r	abies	cases	17,077	18,606	15,482	16,518
Percent	age in	domestic animals	20.6	23.4	12.5	13.8
		wildlife	79.4	76.6	87.4	86.2
u.		fox	70.1	68.6	77.0	77.2
		dog	7.7	9.0	2.2	2.3

In most countries the incidence of rabies in the red fox was higher than in all other species; generally 68-80% of the total. Countries with a notably high proportion of fox rabies were Czechoslovakia (89%), Hungary (94%) and Yugoslavia (92%). In Turkey dog rabies accounted for 62% of cases and on the Island of Svalbard, Norway, the arctic fox, <u>Alopex lagopus</u> for 13 out of 17 cases.

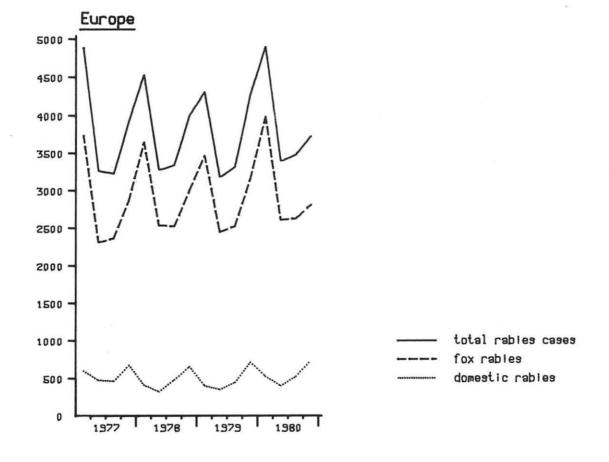
Geographically, notable changes in rabies distribution were: Yugoslavia an increase and spread southwards of rabies in Slovenia; Czechoslovakia a marked increase of cases along the north western border with the DDR; Austria - a continued reduction in the number of rabies cases; France - an extension westwards in the north west of the country towards the english channel.

## 3.2 Rabies Incidence in the European Region 1977-1980

Rabies incidence in the European region shows a large seasonal variation due primarily to variations in the recorded incidence of fox rabies. However, in the corresponding quarters of the years 1977-1980 incidence changed by not more than a few hundred (a maximum of 600; in the totals of the first quarters of 1979 and 1980) even though seasonal variation may result in a difference between quarters of up to 1500 recorded cases.

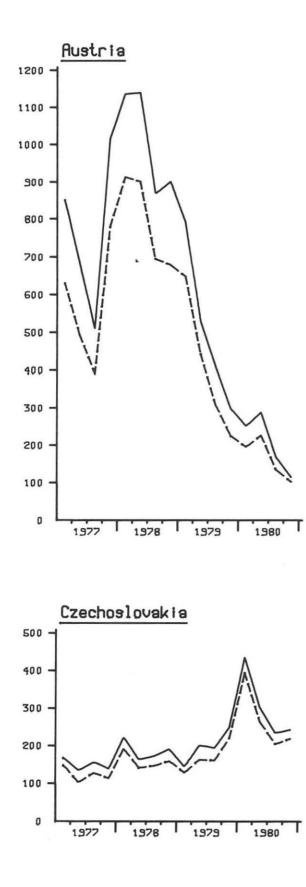
Rabies in domestic animals in Europe reaches a peak in the 4th quarter of each year. This is due mainly to the proportionate increase in the incidence of cattle rabies from around 3-5% of the total in the 1st, 2nd and 3rd quarters of the year to about 9% in the 4th.

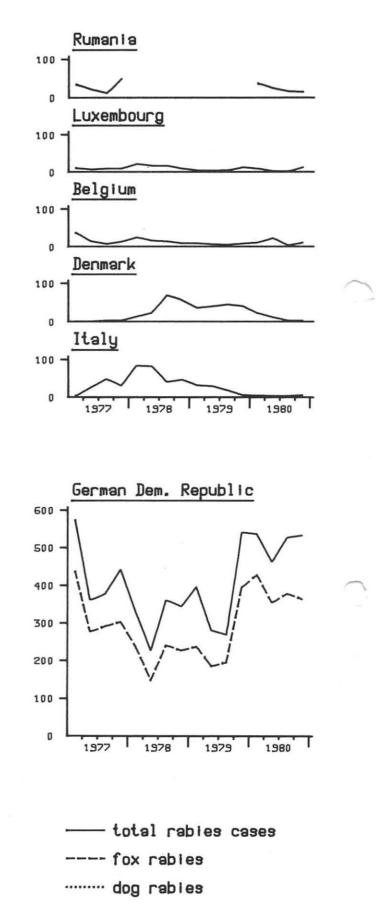
The graph below illustrates recorded rabies cases in Europe for each quarter 1977-1980. Because of incomplete quarterly data, Rumania, Yugo-slavia, Turkey and the USSR are not included.

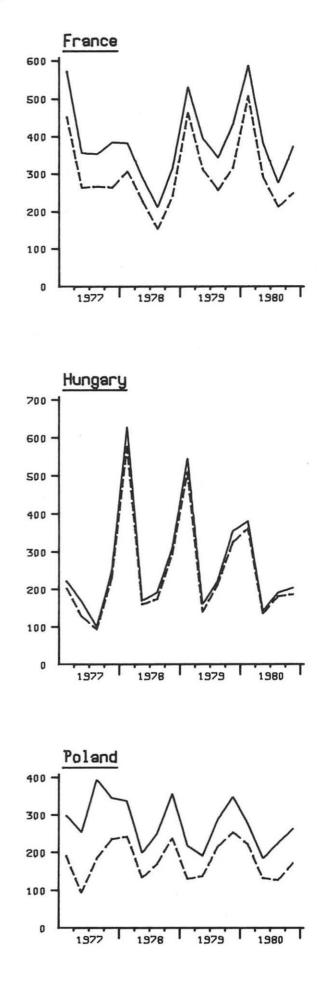


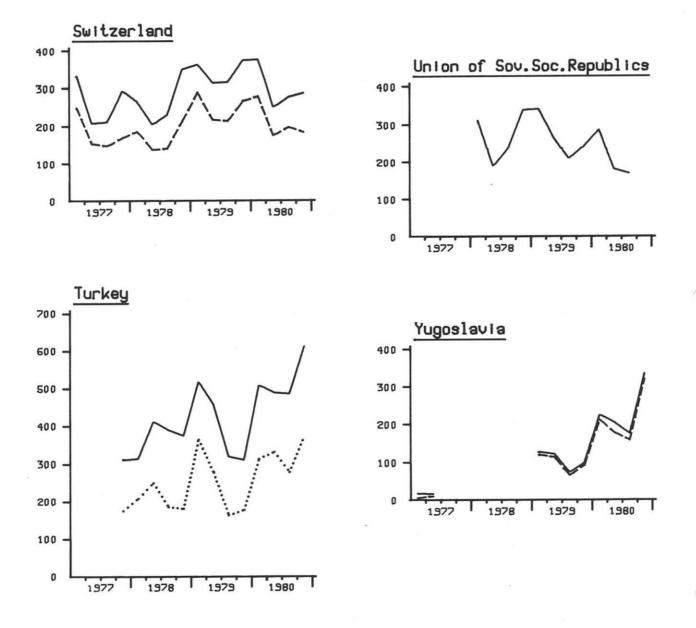
On the following 3 pages quarterly rabies incidence in individual countries has been graphed. All participating countries with rabies are included except those where rabies incidence has been in single cases and sporadic - the Netherlands, Spain, Greece and Norway.

Rabies Incidence in the European Region, 1977-1980.









The graphs indicate some of the changes that have taken place in recorded rabies incidence. In <u>Austria</u> the first wave of fox rabies reached a peak in 1978 and has since dropped steadily. Similarly in <u>Denmark</u> and <u>Italy</u> rabies incidence has markedly fallen since 1978. In <u>Czechoslovakia</u>, rabies incidence has increased mainly in the North and West of the country near the borders with the Federal and Democratic Republics of Germany and in <u>Yugoslavia</u> rabies incidence during 1980 has increased markedly as fox rabies has spread into the north west from Austria.

The percentage involvement of the fox is also very variable. In Hungary, Yugoslavia and Czechoslovakia foxes account for more than 85% of recorded rabies cases. Austria, the German Democratic and German Federal Republics, Poland, France and Switzerland usually record a 60-80% fox involvement though rarely higher or lower. In Turkey recorded fox rabies and rabies in wild life is almost nil; the involvement of dogs is between 55-70%.

### 3.3 Rabies in Man

## 1) Yugoslavia by M. Petrović

Two cases of human rabies were officially registered in Yugoslavia during 1980. Both persons were inhabitants of the Socialist Autonomic Province Kosovo where canine rabies exists.

The first was a 37 year old male peasant bitten by an unknown dog (sheep watch dog) on the fingers and fist of the left hand. He did not receive any post-exposure rabies treatment. Clinical symptoms appeared on 8 May and death occurred on 13 May 1980.

The second incident was a 21 year old female bitten on the left hand in the courtyard of her own house. She did not ask for medical treatment because the injury was small. First clinical symptoms appeared on 3 June 1980 with death on 10 June 1980.

## 2) France

A case of imported rabies in man was reported from the department La Loire in November 1980. A young boy originally from Tunisia was bitten on 24 August 1980 by a dog that was immediately afterwards killed. The boy was bitten in a small village near Monastir in Tunisia; he was given an injection of a Pasteur vaccine about which it was impossible to discover more details.

The first clinical signs of the disease appeared on the 3 November 1980, followed by a rapid evolution of the disease and death on the 6 November. The diagnosis of rabies was confirmed by examination of the brain.

58 persons having contact with the boy have since received postexposure rabies prophylaxis.

(from Bulletin Epidemiologique Hebdomadaire No. 46, 1980).

## 3) Hongkong

Two human deaths due to rabies were recorded in Hongkong in 1980. The first case believed to have been caused by a bite from a local rabid dog was confirmed on 3 October 1980. The second human death occurred in November.

Up to the 17 November 1980, seven cases of rabies in dogs were confirmed by standard laboratory tests (fluorescent antibody test and negri bodies). One vaccinated dog dying two days after vaccination was found rabies positive. The death was due in all probability to an earlier infection with street rabies virus.

(Information from K. Bögel, WHO, Geneva /Switzerland).

## 3.4 Rabies Vaccination in the Netherlands by C. J. Vermeulen

As from the 1 December 1980, the yellow fever vaccination centres in the Netherlands offer the possibility of pre-exposure vaccination against rables with DKCV (dog kidney cell vaccine). DKCV, which can taken as equivalent to HDCV (human diploid cell vaccine), is prepared at the National Institute of Public Health at Bilthoven.

Vaccination is only possible if the person submits himself to serological test at the National Institute of Public Health. The series of vaccinations consists of two injections at an interval of 3 or 4 weeks with a third vaccination about 6 months later. Check-ups, by means of blood samples are made after each injection and also, where possible, in the 2nd-4th week following the second and third injections.

People in the following risk groups are eligible for vaccination:

- persons in the Netherlands who (may) come into contact with rabies virus during their work.
- persons working in countries where exposure to rabid animals is a possibility.

Post-exposure treatment will continue to take place at the National Institute for Public Health.

TABLE 1

EUR EUROPE	4/80				RABI	ES (	CASE	S					1.10,	80 - 31	.12.80
LOCATION		мод	EST	IC A	NIM	ALS	70		WI	LD A	NIM	ALS			8
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
01 AUSTRIA	-	. 1	. 3		-	-	4	100	3	2	3	-	108		112
02 BELGIUM 03 BULGARIA *	-	-	4	1	-	-	5	6	-	-	-		6		11 0
04 CZECHOSLOVAKIA 05 DENMARK	3	10	-		3	-	16	219 1	-	3	4	1	227 1		243 2
06 GERMAN DEM. REPUBLIC 07 FED.REP. OF GERMANY	17 34	37	34	6	28 28	-	122 329	363	5 19	12 61	28 113	3	411		533
08 FINLAND *							0				113	1000	0		0
09 FRANCE 10 GREECE *	11	19	51	8	24		113 0	250	6	-	-	5	261	1	375
11 HUNGARY 12 ITALY	6	7	4	-	-		17	186 5	-	-	-	1	187 5		204
13 LUXEMBOURG 14 NETHERLANDS *	-	-	5	-	-	-	5	8	-	-	-	-	8		13
15 POLAND	9	31	27	-	5	-	67	173	2	8	6	7	196	÷	263
16 RUMANIA 17 SPAIN *	1	2	4		1		8	6		-	-	-	6		14 0
18 SWITZERLAND + LIECHT, 19 TURKEY	4 372	27	18 168	3	13	13	65 604	182	21	7	11	1 6	222		287 612
20 YUGOSLAVIA 22 NORWAY **	3	4	1		-	-	8	321	-	-	-	7	328 1		336 1
TOTAL	460	239	510	35	107	13	1364	2960	57	93	165	49	3324	1	4689
PER CENT	9.8	5.1	10.9	0.7	2.3	0.3	29.1	63.1	1.2	2.0	3.5	1.0	70.9	0.0	100.0

\* NO CASES, \*\* ON ISLAND OF SVALBARD.

EUR EUROPE	1980			1	RABI	ES	CASE	S					1. 1.	80 - 31	.12.80	
LOCATION		ром	EST	IC A	NIM	ALS			WI	LD A	NIM	ALS				1
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL	
01 AUSTRIA 02 BELGIUM 03 BULGARIA *	3	21 2	16 8		3		43 11 0	652 35	58 1	19	42	2	773 36 0		816 47 0	
04 CZECHOSLOVAKIA 05 DENMARK 06 GERMAN DEM. REPUBLIC	27 	45 	2 3 77	- 10	5 4 65	2	81 2. JP) 7. 2 (372)	1079 29 1523	4 _ 11	22 1 58	20 - 83	6	1131 30 1684		1212 37 2056	1 0/11
07 FED.REF. OF GERMANY 08 FINLAND * 09 FRANCE	117	203	423	44	130	25	2 (922) 306	4895	104	283	353 13	46	5681 0 1313	1	6603 0 1620	5 866 7
10 GREECE * 11 HUNGARY 12 ITALY	13	28	9	-	-		0 50 0	864	- 2	5	3	1	0 868 12		0 918 12	
13 LUXEMBOURG 14 NETHERLANDS *	-	- 97	55	- 5	2	- 3	6 0 215	17	- 12	- 21	-	-	17 0		23 0	
16 RUMANIA 17 SPAIN **	11 1	10	14	1			42 1	39	3	1	22	25 2	729 45 0	- 14	944 87 1	
18         SWITZERLAND + LIECHT.           19         TURKEY           20         YUGOSLAVIA           22         NORWAY	12 1289 16	84 142 12	40 482 4	5 10 -	48 97 -	1 43 7	190 2063 39 0	832 y 2 862 ' -	81	33	48 - - -	6 20 32 17	1000 25 894 17	2	1190 2088 935 17	
TOTAL	1670	834	1250	102	429	63	4350	12749	296	445	584	181	14255	_3	18608	1
PER CENT	9.0	4.5	6.7	0.5	2.3	0.3	23.4	68.5	1.6	2.4	3.1	1.0	76.6	0.0	100.0	

TABLE 2

.

\* NO CASES, \*\* IN NORTH AFRICA, \*\*\* ON ISLAND OF SVALBARD.

\* U. JCP 1296 Hausteine

.

TABLE 3 RABIES INCIDENCE RATES (% TOTAL) FOR INDIVIDUAL ANIMAL SPECIES AND FOR TOTAL CASES OF 10 EUROPEAN COUNTRIES RANKING HIGHEST IN 1980,  $_{\rm F}$ 

. 1

EUR EUROPE	1980												1. 1.	80 - 31	.12.80
LOCATION		ром	EST	C A	NIM	ALS			WI	_ D A	NIM	ALS		[	
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
EUROPE															
TOTAL RABIES CASES	1670	834	1250	102	429	63	4348	12749	296	445	584	181	14255	3	18606
						PER C	ENT INV	DLVEMEN	т / соц	NTRY					
07 FED.REP. OF GERMANY	7.0	24.3	33.8	43.1	30.3	7.9	21.2	38.4	35.1	63.6	60.4	25.4	39.9		35.5
19 TURKEY	77.2	17.0	38,6	9.8	22.6	68.3	47.4	0.0	0.3	0.4		11.0	0.2		11.2
06 GERMAN DEM, REPUBLIC	4.9	16.4	6.2	9.8	15.2	3.2	8.6	11.9	3.7	13.0	14.2	5.0	11.8		11.1
09 FRANCE	2.8	6.4	8.9	25.5	16.1		7.0	9.9	6.4	1.1	2.2	8,3	9.2	33.3	8.7
04 CZECHOSLOVAKIA	1.6	5.4	0.2		1.2	3.2	1.9	8.5	1.4	4.9	3.4	3.3	7.9		6.5
18 SWITZERLAND + LIECHT.	0.7	10.1	3.2	4.9	11.2	1.6	4.4	6.5	27.4	7.4	8.2	3,3	7.0		6.4
15 POLAND	3.2	11.6	4 . 4	4.9	0.5	4.8	5.0	5.1	4.1	4.7	3.8	13.8	5.1		5,1
20 YUGOSLAVIA	1.0	1.4	0.3			11.1	0.9	6.8				17.7	6.3	66.7	5.0
11 HUNGARY	0.8	3.4	0.7				1.1	6.8		-	0.5	0.6	6.1		4.9
01 AUSTRIA	0.2	2.5	1.3		0.7	-	1.0	5.1	19.6	4.3	7.2	1.1	5.4		4.4
TOTALS FROM 10 COUNTRIES	1658	822	1219	100	419	63	4281	12619	290	443	584	162	14098	3	18382
EQUAL % TOTAL	99.3	98.6	97.5	98.0	97.7	100.0	98.5	99.0	98.0	99.6	100.0	89.5	98.9	100.0	98.8

TABLE 4

EUR EUROPE	4/80				BIES HERAN	5 C A S IMAL SPEC						1.10	0.80 - 3	1.12.80
LOCATION	OTH.DOM.ANIM.					OTHER U	WILD 6	ANIMALS					UNICOFCO	TOTAL
CODE NAME	DONKEY	ARCTIC FOX	JACKAL	RACOON DOG	WILD CAT	OTH.WILD CARNIVOR		CHAMOIS	SQUIRREL	HOUSE MOUSE	HARE	OTH.WILD ANIMAL	UNSPEC.	TOTAL
04 CZECHOSLOVAKIA		-	-	-	1	-	-	-		-	-	-	-	1
06 GERMAN DEM. REPUB.		Ξ,	-	-	-	-	1	<u>_</u>	1	-	1	-	-	3
07 FED.REP.OF GERMANY	-	-	-	-	-	1	-	-	-		-	-	16	17
09 FRANCE			-	-	2002	-	l inter	-			-	5	-	5
11 HUNGARY	-	-	-	-	1	-	· •	-	-1	-	-	-		1
15 POLAND	-	-	-	5	-	-	2	-	-	-	-	-	-	7
18 SWITZERLAND	_	. H	-	-		-		1	-	-	-		-	1
19 TURKEY	13	-	1	-	-	. –	-	-	-	5	-	-	-	19
20 YUGOSLAVIA	-	-	-	-	-	-	-	-	-	÷	-	7	-	7
22 NORWAY	-	1	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL	13	1	1	5	2	1	3	. 1	1	5	1	12	16	62
PER CENT	21.0	1.6	1.6	8.1	3.2	1.6	4.8	1.6	1.6	8.1	1.6	19.4	25.8	100.0

TABLE 5

ί.

EUR	E L	JRO	ΡE	1	980	)					ł	A B 'OTHE				S E ECIES									:	1. 1	.80 -	31.12	2,80
	OTH	IER DO	DMES	FIC A	ANIMA	ALS									OTH	IER I	JILD	ANI	MALS									1ED	
COUNTRY	CARNIUOR	ронкеу	MULE	PIG	HERBIUOR	OTHERS	ARCT.FOX	ОТН. FOX	JACKAL	сочоте	HOLF	RACOON DOG	UILD CAT	RACOON	CARNIUOR	CERUIDAE	<b>WILDBOAR</b>	MOUFLON	CHAMO 1 S	нерсенос	SQUIRREL	макмот	ROOF RAT	HOUSE MOUSE	HARE	OTH. RAT	OTHERS	UNSPECIF1E	тотяг
01 AUT	-	-		-	-	-	-	-	1	1	-	-	-	-			T,		1	-	-	1	-		-	-	-	-	2
04 CZE	-	-		-	2	-	-	-	-	-			3.	-	4		T	2	-	-	-	-	-	1	-	-	-	-	8
06 DDR	-	-	-	2	-		-	-	-	-	-	-	-		æ	-	3	1		1	1	-	1	-	2	-	-		11
07 DEU		з		2		-	-	2		-	-	-	-	2	1		1	2	-	1	1	-	-	-	1	1	-	34	51
09 FRA		-			-	Sume	544	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-	-	15	-	15
11 HUN	-	-	-		-	-	-	-		-			1	-	-		-		-		-				-	-	-	-	1
15 POL	1			2	-	-	-	-	-	-	-	17	-	-		-	2		-		5		-	-	1	-	-	-	28
16 RUM	-	-			-		-		-	-		-		-			-		***				-	-	-		2	-	2
18 SWI	-	1		-	-	-	-	-	-	-	-	-	-	1	-	-	1		4		-	-	-	-		+	-	•5	7
19 TUR	-	33	1	-	7	2		-	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	63
20 YUG	-	-		-	-	7		4	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-		-	32	_	39
22 NOR		-		***			13	-	-	-		-		-	1	3	-	-	-	-	-		-	- 1	-	-	-	-	17
TOTAL	1	37	1	6	9	9	13	2	3	2	1	17	4	3	2	3	7	5	5	2	7	1	1	15	4	1	49	34	244
%	0.4	15.2	0.4	2.5	3.7	3.7	5.3	0.8	1.2	0.8	0.4	7.0	1.6	1.2	0.8	1.2	2.9	2.0	2.0	0.8	2.9	0.4	0.4	6.1	1.6	0.4	20.1	13.9	100.

DCATION		μοα	EST	IC A	NIM	ALS			WIL	_D A	NIM	ALS		HUMAN	TOTAL
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	CASES	TOTAL
86 OBERPULLENDORF 87 OBERWART K1 HERMAGOR K2 KLAGENFURT-LAND K4 SPITTAL/DRAU K5 VILLACH-LAND								1 2 1 3 2					1 2 1 3 2		-
VILLACH-LAND (6 VOELKERMARKT N5 GMUEND N16 SCHEIBBS N24 WAIDHOFEN/YBBS D12 STEYR-LAND ST1 BRUCK/MUR	-	1	-	-	-	-	1 0 0 0	2 3 1 4 3 9					2 3 4 1 5 10		
ST2 DEUTSCHLANDSBERG ST5 GRAZ-LAND ST10 LEOBEN ST11 LIEZEN ST12 MUERZZUSCHLAG T1 IMST	-	-	1	-		-	0 0 1 0	1 6 3 6 10 6		- - - 1	- 2		1 6 3 8 10 7		. 1
T2 INNSBRUCK-LAND T4 KUFSTEIN T5 LANDECK V1 BLUDENZ V2 BREGENZ V4 DORNBIRN	-	-	1	-			0 1 0 1 0	1 6 23 1 - 6		1		-	1 6 24 1 1 6		2
TOTAL	0	1	3	0	0	0	4	100	3	2	3	0	108	0	1:
PER CENT	0.0	0.9	2.7	0.0	0.0	0.0	3.6	89.3	2.7	1.8	2.7	0.0	96.4	0.0	100

AUT

				I	RABI	ES	CASE	S				. ×	1.10.	80 - 31	.12.80
LOCATION		ром	EST	IC A	NIM	ALS			WII	D A	NIM	ALS		HUMAN	TOTAL
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	CASES	TOTAL
BEL BELGIUM															
LG LIEGE LX LUXEMBOURG	-	-	2 2	- 1		_	2 3	4 2	-	-		-	4		6 5
TOTAL	0	0	4	1	0	0	5	6	0	0	0	0	6	0	11
DEN DENMARK															
050539 TINGLEV	-	-	1	-	-	-	1	1	-	-	-	-	1	4	2
ITA ITALY															
33020 SOCCHIEVE 33021 AMPEZZO 39020 CURON 39024 MALS					-		0 0 0	1 1 1 2		111	-		1 1 1 2		1 1 1 2
TOTAL	0	0	0	0	0	0	0	5	0	0	o	0	5	0	5
LUX LUXEMBOU	RG														
0311 RDESER 0402 CONTERN 0405 SANDWEILER 0406 SCHUTTRANGE 1203 FLAXWEILER 1204 GREVENMACHER 1301 BURMERANGE 1302 DALHEIM 1308 WALDBREDIMUS	-	-	3 1 1	-	-	-	0 3 0 0 0 0 1 1 0	1 1 1 2 1					1 1 1 2 1 0 0		1 4 1 2 1 1 1 1
TOTAL	0	0	5	0	0	0	5	8	0	0	0	0	8	0	13
PER CENT	0.0	0.0	38.5	0.0	0.0	0.0	38.5	61.5	0.0	0.0	0.0	0.0	61.5	0.0	100.0
NOR NORWAY															
ISLAND OF SVALBARD							0	-	-	-	-	1	1		1

.

LOCATION		ром	ESTI	C A	NIM	ALS			WIL	D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
00 DISTRICT OF PRAGUE 01 CENTRAL BOHEMIA 02 SOUTH BOHEMIA 03 WEST BOHEMIA 04 NORTH BOHEMIA 05 EAST BOHEMIA 06 SOUTH MORAVIA 07 NORTH MORAVIA 0 CSR 10 DISTRICT OF BRATISLAV 11 WEST SLOVAKIA 12 CENTRAL SLOVAKIA		7 3 2 12 1 5					0 0 7 3 2 0 0 0 12 0 2 7	16 8 46 82 18 3 16 189 1		1 1 2 1 1 3	1	1	0 18 8 47 86 18 3 <u>16</u> 196 0 1 12		0 18 8 54 89 20 3 16 208 0 3 19
13 EAST SLOVAKIA 1 SSR	1 4	- 6	-	-	-	-	1 10	2 15	-	-	-	-	2 15		3 25
TOTAL	4	18	0	0	0	0	22	204	1	3	2	1	211	0	233
PER CENT	1.7	7,7	0.0	0.0	0.0	0.0	9.4	87.6	0.4	1.3	0.9	0.4	90.6	0.0	100.0
CZE CZECHOSLOVAK SOU		REPUBL			RABI NIM	ES (	9.4 CASE		0.4 W I I		0.9 N I M			80 - 31	.12.80
CZE CZECHOSLOVAK SOC		REPUBL	IC		RABI	ES (				D A					
CZE CZECHOSLOVAK SOC	CIALIST	REPUBL	IC EST:		R A B I N I M SHEEP	ES I	CASE	S	W I I	D A	NIM	A L S	1,10,	80 - 31 HUMAN	.12.80

DDR GERMAN DEMOCRAT	IC REPUI	3LIC			RABI	E S	CASE	S					1.10.	80 - 31	.12.80
LOCATION		моа	EST	IC A	ΝΙΜ	ALS			WI	L D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
I ROSTOCK	3	1	2	1	-	1	7	32	2	1	1		36		43
II SCHWERIN		3		-			3	21		2	1	(1999)	24		27
III NEUBRANDENBURG	2	1	4				7	28		2	4		34		41
IV POTSDAM	3	3	4	1			11	25		2	4	2	33		44
V FRANKFURT/ODER	2	1	4	-	1		8	22	-	-	1	-	23		31
VI COTTBUS	1	6	4	-			11	25	-	2	2		29		40
VII MAGDEBURG	1	1	3	2		-	7	35	-	1	1		37		44
VIII HALLE	1	4					5	22			3	-	25		30
IX ERFURT	1	2	4	-	3		10	16		-	2	-	18		28
X GERA	-	-			4		4	24		1	4	-	29		33
XI SUHL		3	1	1	1	-	6	40	1	-	2	1	44		50
XII DRESDEN		3	3	1	4		11	18	2	1	-	-	21		32
XIII LEIFZIG		1			1	-	2	1		-		-	1		3
XIV KARL-MARX-STADT	3	8	5	-	14		30	53			3	1000	56		86
XV HAUPTSTADT BERLIN							0	1					1		1
TOTAL	17	37	34	6	28	0	122	363	5	12	28	З	411	0	533
PER CENT	3.2	6.9	6.4	1.1	5.3	0.0	22.9	68.1	0.9	2.3	5.3	0.6	77.1	0.0	100.0

DEU FEDERAL REPUBLIC	CF GEF	MANY		1	RABI	ES (	CASE	S					1.10.	80 - 31	.12.80
LOCATION		ром	ESTI	C A	NIM	ALS			WII	D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
010 SCHLESWIG-HOLSTEIN 020 HAMBURG 031 BRAUNSCHWEIG 032 HANNOVER 033 LUENEBURG 034 WESER-EMS 040 BREMEN 051 DUESSELDORF 053 KOELN 055 MUENSTER 057 DETMOLD 059 ARNSBERG 061 DARMSTADT 062 KASSEL 071 KOBLENZ 072 TRIER 073 RHEINHESSEN-PFALZ 081 STUTTGART 082 KARLSRUHE 083 FREIBURG 084 TUEBINGEN 091 DBERBAYERN 092 NIEDERBAYERN 092 NIEDERBAYERN 093 OBERFFALZ 094 DBERFRANKEN 095 MITTELFRANKEN 095 SCHWABEN	234 311 - 1232 271	1 5-1 -34412143971-2-142	$ \begin{array}{c} - \\ 11 \\ 8 \\ 3 \\ 2 \\ 21 \\ 9 \\ 6 \\ 7 \\ 10 \\ - \\ 1 \\ 2 \\ 7 \\ 41 \\ 32 \\ 1 \\ - \\ 18 \\ \end{array} $	- 1 1 1 1 2 2 - 1 1 1 1 - 2 - 1 - 1 -	- 2 - 4 11 2 1 2 1 1 1 - - - - - - - - -		$\begin{array}{c}1\\0\\19\\9\\5\\0\\0\\0\\9\\9\\1\\3\\1\\0\\1\\7\\4\\8\\5\\7\\0\\8\\5\\3\\3\\1\\3\\1\\2\\2\\1\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\1\\2\\2\\2\\1\\2$	$\begin{array}{c} 6\\ 52\\ 223\\ 3\\ 2\\ 29\\ 79\\ 502\\ 48\\ 48\\ 456\\ 149\\ 485\\ 156\\ 149\\ 445\\ 152\\ 39\\ 445\\ 152\\ 51\\ \end{array}$	- 3 - - 3 1 - - - - - - - - - - - - - -	2 4 1 1 1 2 1 6 1 2 2 1 4 1 3 2 4 1 2 1 1 2 9	- 53 - 668444145627-1265		$\begin{array}{c} 8\\ 0\\ 71\\ 25\\ 4\\ 6\\ 0\\ 0\\ 3\\ 0\\ 7\\ 364\\ 105\\ 483\\ 165\\ 58\\ 179\\ 175\\ 175\\ 125\\ 125\\ 125\\ 125\\ 125\\ 125\\ 125\\ 12$		9 0 90 34 9 6 0 0 3 0 46 75 125 68 80 20 66 756 225 134 16 45 48 21 37 87
100 SAARLAND 110 BERLIN (WEST)	2	6	10	1	2	-	21 0	22	-	2	4		28 0		49 0
TOTAL PER CENT	34 2.0	61 3.6	190	16 1.0	28	0	329 19.6	1139 67.9	19	61 3.6	113 6.7	17 1.0	1349 80.4	0.0	1678 100.0

FRA FRANCE				l	RABI	ES (	CASE	S					1.10.	80 - 31	.12.80
LOCATION		ром	EST	IC A	NIM	AĻS			WII	D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
02 AISNE					1		1	25	-				25	1	26
08 ARDENNES		-	3		3		6	2					2		8
10 AUBE	1		1				2	26	1				27		29
21 COTE D'OR	ī	200 <b>000</b> 0	6		4		11	27				2	29	1	40
25 DOUBS	-						0	3	1		-	-	4		4
39 JURA	-		1				1	-	-				0		li
45 LOIRE			-			1	ō						ŏ	1	
51 MARNE	1 1	3					2	10					10	1	12
52 MARNE (HAUTE)	1	3	-		2		6	5			-	-	5		11
54 MEURTHE-ET-MOSELLE	-	2		10000	A	·	3	17	1	1			18		21
55 MEUSE	2	2	23	4	7		38	22	1	-		_	22		
57 MOSELLE	1		14				16	16				1997			60
60 DISE		4	1.4	1	1			18		_	-	-	16	1	32
67 RHIN (BAS)	1 1	1		1	1	-	4	18				1	19		23
68 RHIN (HAUT)	-			1000			0						3	1	3
70 SAONE (HAUTE)	1	2	1	2	1		1	2	1	-	-	-	3		4
73 SAVOIE	T	2	1	2	2		8	22		-	-	1	23		31
74 SAVOIE (HAUTE)	1	7			3			30	10.25			1.02	233		2
76 SEINE MARITIME	т.			1	5		12		2			1		10	45
77 SEINE-ET-MARNE							0	2				-	2		2
88 VOSGES	1						0	2					2		2
88 VUSGES 89 YONNE	1	1		C Read of C			2	8					8		10
							0	6			-		6		6
90 TERR.DE BELFORT							0	2			-		2		2
TOTAL	11	19	51	8	24	0	113	250	6	0	0	5	261	1	375
PER CENT	2.9	5.1	13.6	-2.1	6.4	0.0	30.1	66,7	1.6	0.0	0.0	1.3	69.6	0.3	100.0

 $\left( \right)$ 

•

LOCATION		ром	EST	IC A	NIMA	ALS			WIL	D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
01 BUDAPEST							0	2				-	2		2
02 BARANYA				1			0	7					7		1 7
03 BACS-KISKUN	-	-	1		-	-	1	14	-	-		-	14		15
04 BEKES		1	- 1		-		1	3	-	-	-	-	3		4
05 BORSOD-ABAU-ZEMPLEN	1	1	-	-		÷.	2	19	-	-	-	-	19		21
06 CSONGRAD	-	1	-	-	-		1	15	-	-	-	-	15		16
07 FEJER	2	-	-	-	-	-	2	22	-	-	-	-	22		24
08 GYDER-SOPRON	2	-	-	-	-	-	2	11	-	-	-	-	11		13
09 HAJDU-BIHAR			1				0	5	-	-		-	5		5
10 HEVES							0	5	-	-	-	-	5		5
11 KOMAROM	1	-		-			1	14	-	-	-	200	14		15
12 NOGRAD	-	-	2	-	-	-	2	10		-	3776	-	10		12
13 PEST	-	1	-	-	-	-	1	14	-	-	-	1	15		10
14 SOMOGY	-	2	-	-	-		2	3		-		-	3		
15 SZABOLCS-SZATMAR	-	1	1	-	-	-	2	4		-	-	-	4	1	
16 SZOLNOK							0	2	-	-	-	-	2		
17 TOLNA							0	5	-	-	-	-	5	1	
18 VAS							0	14	-		-	-	14		14
19 VESZPREM 20 ZALA							0	8	-			-	9 8		8
TOTAL	6	7	4	0	0	0	17	186	0	0	0	1	187	0	204
PER CENT	2.9	3.4	2.0	0.0	0.0	0.0	8.3	91.2	0.0	0.0	0.0	0.5	91.7	0.0	100.

......

LOCATION		ром	EST	C A	NIM	ALS			WII	D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	CASES	TOTAL
01 WARSZAWA							0	19	1	2	·		22		22
05 BIALYSTOK			2	Case			2	3			-	1	4		6
07 BIELSKO-BIALA							0	1	-				1		
09 BYDGOSZCZ		1	-	1,000			1	2	1000	-	-		2		
11 CHELM		1		10000			1	1			1444		1		
13 CIECHANOW							0	1			1000		1		
15 CZESTOCHOWA							0	1			-	-	1	1	
17 ELBLAG	2	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	4	1444	-		6	3					3		
19 GDANSK							0	4		2			6		
21 GORZOW	1	·		(+++)			1	3	-		1		4		
23 JELENIA GORA		2	-	(***			2	13					13		1
25 KALISZ	2	-					2	15					15		1
27 KATOWICE		3					3						0		
29 KIELCE		4				1	4	2			-		2		
31 KONIN							0	1				-	1		
33 KOSZALIN							0	12				1	13		1
39 LEGNICA							0	2					2		
41 LESZNO		1	2	****			3	9		2		1	12		1
43 LUBLIN		1225	1				0	1000 C	1		( <b></b> )		1		
51 OLSZTYN		3	9				12	5			2	2	9		2
53 OPOLE		2		1.			2	10	-	-			10		1
55 OSTROLEKA	200						0	-			1	-	1		
57 PILA	1	1		1000		-	2	10			1	****	11		1
61 PLOCK							0	2	-			-	2	a	
63 POZNAN		3		· · · · ·	-		3	6					6		
65 PRZEMYSL	-						0	1	-				1		
67 RADOM 71 SIEDLCE		2			-		2	1	-		-	-	1	1	
77 SLUPSK	1	-					1	7					7		
79 SUWALKI							0	3			-	-	3		
81 SZCZECIN		2	6				6 2	47		1		2	7		1.
83 TARNOBRZEG		1					- 1	1			1		8 1		10
87 TORUN	1	2	4				7	1		1			2		
89 WALBRZYCH		*-	7				ó	8			_		8		
91 WLOCLAWEK		2					2	1					1		
93 WROCLAW							õ	5					5		
97 ZIELONA GORA	1	1					2	9	1.000	10021		-	9		1
TOTAL	9	31	27	0	0	0	47	177	2			-7	10/		
		01	21	V		0	67	173	2	8	6	7	196	0	26
PER CENT	3.4	11.8	10.3	0.0	0.0	0.0	25.5	65.8	0.8	3.0	2.3	2.7	74.5	0.0	100.

RUM RUMANIA					RABI	ES	CASE	S					1. 7.	80 - 30	. 9.80
LOCATION		мод	EST	IC A	NIM	ALS			ωı	L D A	мім	ALS			TOTAL
	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
01 ALBA 06 BISTRITA-NASAUD 08 BRASOV 11 CARAS-SEVERIN 23 ILFOV 24 MARAMURES 26 MURES			1 - - 1		1		0 2 1 1 1 1 0	1 - 1 2	1			1	2 0 1 1 3		2 2 1 2 2 1 3
31 SALAJ 32 SIBIU	-	1	1		-	-	1						0		1
TOTAL	1	1	4	0	2	0	8	4	1	0	0	2	7	0	15
PER CENT	6.7	6.7	26.7	0.0	13.3	0.0	53.3	26.7	6.7	0.0	0.0	13.3	46.7	0.0	100.0

RUM	R	U	М	A	N	I	A		
LOCATIO	N							α	0

R	A	B	т	F	S	С	A	S	F	S	
12	m	10	*	he	-	6	n	0	-	5	

1.10.80 - 31.12.80

LOCATION		ром	EST	IC A	NIM	ALS			ωıι	D A	NIM	ALS			TOTAL
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	CASES	TOTAL
01 ALBA 04 BACAU		-	1	-	-	-	1 0	1	-	_			0 1		1
06 BISTRITA-NASAUD 08 BRASOV	1	1	1				3						0		3
19 HARGHITA	-	-	1			-	1	1					ŏ		î
20 HUNEDOARA 23 ILFOV 24 MARAMURES	-	-	-	-	1	-	0 1 0	1 1 1	-	-	1 1	-	1 1 1		1 2 1
30 SATU-MARE 31 SALAJ 32 SIBIU	_	-	1	_	_	-	0 0 1	1 1	-	-	-	-	1 1 0		1 1 1
TOTAL	1	2	4	0	1	0	8	6	0	0	0	0	6	0	14
PER CENT	7.1	14.3	28.6	0.0	7.1	0.0	57.1	42.9	0.0	0.0	0.0	0.0	42.9	0.0	100.0

LOCATION		ром	EST	C A	NIM	ALS			WII	D A	NIM	ALS			TOTAL
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
01 AARGAU		3	2		1	-	6	1		-	2	-	3		9
05 BASEL-LAND							0	2	1	1	1		5		5
06 BERN	1	6	2	2	5		16	51	10	2	2		65		81
07 FREIBURG	1		·		-		1	3		-	-	-	3		4
08 GENF							0	9	4	-		-	13	1	13
09 GLARUS							0	7		-	-		7		7
10 GRAUBUENDEN	(H) (H)	·	1		-		1	24	2		-		26		27
11 LUZERN	-	4	1	-	-	-	5	11	1	1	-	-	13	1	18
12 NEUCHATEL	-	1	3	÷+	1		5	9	-	-		-	9		14
15 SCHAFFHAUSEN							0	1	-	-	-	-	1	1	1
16 SCHWYZ		2	-		1	-	3	19	-	1	-		20		23
17 SOLOTHURN	-	1	3	-		-	4	16	-	2	1	-	19		23
18 ST.GALLEN							0	3		-	1	-	4		4
20 THURGAU	-	1	-		1	-	2	1		-	1		2	1	4
22 WAADT	1		-				1	2		-			2		3
23 WALLIS							0	2		-	****		2		2
24 ZUG		1				-	1	10.4.715					0		1
25 ZUERICH		6	1			****	7	13	3		2	-	18		25
26 JURA	1	2	5	1	4		13	8		-	1	1	10		23
TOTAL	4	27	18	3	13	0	65	182	21	7	11	1	222	0	287
PER CENT	1.4	9.4	6.3	1.0	4.5	0.0	22.6	63.4	7.3	2.4	3.8	0.3	77.4	0.0	100.0

CWI

w

TUR TURKEY					RABI	ES	CASE	S					1.10.	80 - 31	.12.80
LOCATION		моа	EST	C A	NIM	A L S			WIL	_D A	NIM	ALS			
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
001 ADANA	10	-	1		-	-	11	1	-	-	H	-	1		12
003 AFYDN	3				-	1	4						0		4
004 AGRI	2	****					2						0		13
005 AMASYA 006 ANKARA	4	-	8			1 2	13 35						0		35
007 ANTALYA	22	2	3		1	<u>ن</u> ه 	5						0		5
009 AYDIN	10	1	6	_	1	1	19						ő		19
010 BALIKESIR	6	3	1		1		11						0		11
012 BINGOEL	2	1	1				4						ő		4
014 BOLU	7		4				11						0		11
016 BURSA	22	1	3			1	27					2	2		29
017 CANAKKALE	1		1				2						ō		2
018 CANKIRI	2	1	3				6						0		6
019 CORUM	19		10		1		30						0		30
020 DENIZLI	6	1	3	-	1		11		-			1	1		12
021 DIYARBAKIR	-		2				2						0		2
022 EDIRNE	3		2		-	1	6						0		6
025 ERZURUM	2	2	1				5						0		5
026 ESKISEHIR	2				77	-	2						0		2
027 GAZIANTEP	1					-	1						0		1
028 GIRESUN	10	-	5		1		16		1	-	-	1	2		18
029 GUEMUESHANE	-	2					2						0		2
033 ICEL	2	1		-	-	-	3						0		3
034 ISTANBUL	43	5	3		1		52						0		52
035 IZMIR	36	3	3	1	1	· ·	44	S##4.5				1	1		45
036 KARS	2		-				2						0		2
037 KASTAMONU 039 KIRKLARELI	2	1	2			1	6						0		6
V37 NIKKLAKELI	6		2				8						0		E

LOCATION		ром	EST	C A	NIM	ALS			WIL	D A	NIM	ALS			-
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
040 KIRSEHIR	2		2	-	-	1	5						0		5
041 KOCAELI	7		2		-	-	9						0		9
042 KONYA	13	3	7		-		23						ő		23
043 KUETAHYA	3	-	3	-	-		6						Ö		6
044 MALATYA	1		-	·	-		1						0		1
045 MANISA	11	. 2					13						0	1	13
047 MARDIN	3	1	-		-		4						0		4
048 MUGLA	2		-			_	2						o	1	2
049 MUS	1	5.044			-	-	1					1	0		1
050 NEVSEHIR		-	1		-		1						0		1
051 NIGDE	1		1	-			2						0		2
052 ORDU	21	3	9		1	2	36					1	1		37
054 SAKARYA	18	-	13		_	1	31						ō		31
055 SAMSUN	34	6	17			1	58						Ő		58
057 SINDP	1	1 <u>222</u> 1	2				3						0	1	3
058 SIVAS	2			1.000	-		2		1				o		2
059 TEKIRDAG	2	1222		-	-		2						0		2
060 TOKAT	7	-	9		1	-	17						0		17
061 TRABZON	2						2						0		2
062 TUNCELI	4	-	1				5						0		5
063 URFA		1	2				2						0		2
066 YOZGAT	9		12		-	1	22						0		22
067 ZONGULDAK	2	() <b>****</b> ()	15			-	17						0		17
TOTAL	372	40	168	1	10	13	604	1	1	0	0	6	8	0	61
PER CENT	60.8	6.5	27.5	0.2	1.6	2.1	98.7	0.2	0.2	0.0	0.0	1.0	1.3	0.0	100.

.

LOCATION		DOM	EST	IC A	NIM	ALS			WII	D A	NIM	ALS			TOTAL
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
III/ 12 DVOR			1				0	1	-		-	-	1		1
III/ 18 VRBOVEC			1				0	4	-		-	-	4		
III/ 19 ZELINA							0	2	-	-	-	-	2		
III/ 24 ZLATAR BISTRICA					1		0	6	-		-	-	6		
III/ 25 IVANEC	1	-			-	-	1	2	-			-	2		
III/ 26 VARAZDIN							0	2	-	-		-	2		
III/ 27 CAKOVEC							0	1	-	-	-	-	1		
II/ 28 NOVI MAROF							0	11	-	-		-	11		1
II/ 30 KRIZEYCI					1		0	1	-	-	-	-	1		
II/ 32 DURDEVAC					1		0	8	-	-	-	-	8		
III/ 33 BJELOVAR					-		0	5		-		-	5		1
III/ 41 VIROVITICA			1				0	4		-		-	4		
III/ 50 VALPOVO			1		1		0	2	-			-	2		
III/ 51 OSIJEK III/ 52 BELI MANASTIR							0	4	-			-	4		
II/ 52 BELI MANASTIK							0	1				-	1		
/ 1 LJUBLJANA							0	2				-	2		
/ 13 IDRIJA			1				0		_		-	-	1	1	
/ 14 TOLMIN			1				0	1 3		_	-	_	1		
/ 15 RADOVLJICA		1		-	-	122	1	12				1	3 13	1. Y	1
/ 17 SKOFJA LOKA		1	-				ŏ	3	2	_		-	13		
/ 18 TRZIC			1		1		ő	5			_		5		
/ 19 KRANJ							ŏ	13	-	-		_	13		1
/ 20 KAMNIK							ŏ	1		-		-	1		1
/ 21 DOMZALE							Ó	3				-	3		
/ 33 ZAGORJE OB SAVI							0	1				-	1		
/ 34 MOZIRJE		1			-		1	36	-	-	-	1	37		3
/ 35 ZALEC							0	6	-				6		
/ 37 VELENJE			1				0	10	-			2	12		1
/ 38 SLOVENJGRADEC		1				-	1	17	-			-	17		1
✓ / 39 RAVNE NA KOROSKE	. 1				1		0	3	-	-		-	3		

LOCATION	DOMESTIC ANIMALS						WILD ANIMALS						TOTAL		
CODE NAME	DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL	HUMAN CASES	TOTAL
V / 40 DRAVOGRAD V / 41 RADLJE OB DRAVI V / 42 MARIBOR V / 43 SLOV.KONJICE V / 44 CELJE V / 47 SENTJUR PRI CELJ V / 48 SMARJE PRI JELSA V / 49 SLOV.BISTRICA V / 49 SLOV.BISTRICA V / 55 MURSKA SOBOTA VI / 55 REKOVAC VI / 79 ALEKSINAC VII/ 1 NOVI SAD VII/ 4 ZABALJ VII/ 5 TEMERIN VII/ 6 VRBAS VII/ 8 BAC.PALANKA VI1/ 10 SREM.MITROVICA VI1/ 24 PLANDISTE VI1/ 24 PLANDISTE VI1/ 26 ZITISTE VI1/ 26 MALI IDJOS VI1/ 38 NOVI KNEZEVAC VI1/ 39 SUBOTICA VI1/ 41 KULA	2	-	1	-	-		000300000000000000000000000000000000000	3 22 4 57 10 2 1 18 2 1 1 2 1 1 2 1 1 2 1 1 2 3 6				111111111111111111111111111111111111111	3 22 4 58 11 2 1 8 2 1 1 8 2 1 1 8 2 1 1 8 2 1 1 1 6 1 1 1 1 2 3 6 0		3 22 4 61 11 2 1 1 18 2 1 1 1 1 1 1 1 1 1 1 1 1
TOTAL	3	4	1	0	0	0	8	321	0	0	0	7	328	0	336
PER CENT	0.9	1.2	0.3	0.0	0.0	0.0	2.4	95.5	0.0	0.0	0.0	2.1	97.6	0.0	100.0

USR UNION OF SOVIET SOCIALIST REPUBLICS (EUROPEAN PART)	1. 7.80 - 30. 9.80			
LOCATION		TOTAL		
CODE NAME	1. 7 31. 7.	1. 9 30. 9.		
01 RSFSR 011 REGIONS OF THE NORTH AND THE NORTH-WEST 012 REGIONS OF THE CENTRE 013 REGIONS OF THE NORTH CAUCASUS 014 REGIONS OF THE POVOLJE AND THE URALS 02 THE MOLDAVIAN SSR 03 THE UKRAINIAN SSR 04 THE BYELORUSSIAN SSR 05 THE LITHUANIAN SSR 06 THE LATVIAN SSR 07 THE ESTONIAN SSR	10 14 2 17 10 2 3 2	- 8 2 4 2 15 3 4 3 1	- 18 2 11 1 23 2 2 6 -	- 36 4 29 5 55 15 8 12 3
TOTAL	60	42	65	167

LIST OF CONTRIBUTORS

FIN FINLAND AUT AUSTRIA Dr. W. Krocza Director Dr. E. Scharfen Bundesanstalt für Tierseuchenbekämpfung Robert-Koch-Gasse 17 A-2340 Mödling /Austria BEL BELGIUM Dr. R. Depierreux Ministère de l'Agriculture -Inspection Vétérinaire-18, Bd. de Berlaimont B-1000 Bruxelles/Belgium BUL BULGARIA Dr. N. T. Belev Directeur Général des Services Vétérinaires Ministry of Agriculture Sofia /Bulgaria CZE CZECHOSLOVAKIA Dr. M. Capka Chief Veterinary Officer Dr. Neumann Federal Ministry of Agriculture and Food 11006 Praha-Tesnov/CSR DDR GERMAN DEMOCRATIC REPUBLIC Dr. K.-H. Lebentrau Ministerrat der Deutschen Demokratischen Republik Ministerium für Gesundheitswesen Abt. Internationale Beziehungen Rathausstraße 3 DDR 102 Berlin DEN DENMARK Dr. E. Stougaard ITA Chief Vet. Officer Veterinaerdirektoratet Frederiksgade 21 DK-1265 Copenhagen/Denmark Dr. S. Møllgaard Senior Veterinary Officer Solsortevej 3B DK-8210 Aarhus /Denmark Dr. J. Mueller State Veterinary Serum Lab. Bülowsvej 27 DK-1870 Copenhagen /Denmark

Chief of Animal Health Division Ministry of Agriculture and Forestry Veterinary Department Helsinki /Finland FRA FRANCE Dr. L. Andral Directeur Dr. J. Blancou Centre d'Etudes sur la Rage de Nancy B.P. No. 9 Malzeville /France GBR UNITED KINGDOM Dr. W.H.G. Rees Chief Veterinary Officer Ministry of Agriculture, Fisheries & Food -Animal Health Division-Tolworth Surbiton /Surrey GRE GREECE Dr. P. N. Dragonas General Director Veterinary Service Ministry of Agriculture Hellenic Republic 2, Acharnon Street Athen (102) /Greece HUN HUNGARY Dr. A. Glózik Director of Veterinary Services Dr. Laszlo Koltai Ministry of Agriculture Kossuth L. ter 9-11 Budapest V./Hungary

Dr. R. Berger

# TA <u>ITALY</u> Dr.A. Mantovani

Dr. S. Prosperi Istituto di Malatti Infettive Universita degli Studi di Bologna Via S. Giacomo 9/2 I-40126 Bologna /Italy

## LUX <u>LUXEMBOURG</u> Dr. A. S c h i l t g e s Directeur de l'Inspect.Général Vét. Ministère de l'Agriculture B.P. 1403 Luxembourg

NET <u>NETHERLANDS</u> Dr. C.J. V e r m e u l e n Staatsoezicht op de Volksgezondheid Koningin-Julianaplein 3 2595AA s'Gravenhage /Netherlands

NOR <u>NORWAY</u> Dr. Reidar V o l l a n Director of Vet. Services

> Dr. H.O. B a c h - G a n s m o Deputy Director of Vet. Services Det Kongelige Landbruksdepartment Akersgt. 42 Postboks 8007 Dep. Oslo 1/Norway

POL <u>POLAND</u> Dr. Jan K o l a c z Head of Animal Health Division Ministry of Agriculture ul. Wspolna 00-930 Warszawa /Poland

> Dr. Danuta S e r o k o w a Head of Anthropozoonoses Lab. National Institute of Hygiene ul. Chocimska 24 00-791 Warszawa /Poland

POR <u>PORTUGAL</u> Dr. Mário T e i x e i r a Ministério da Agricultura e Pescas Direccao-Geral dos Servicos Pecuarios Servicos de Sanidade Veterinaria Lissabon /Portugal

RUM RUMANIA

Dr. Ion D i d a Directeur de la Direction Sanitaire Vétérinaire Ministère de l'Agriculture B-dul Republicii 24 Bucuresti/Rumania

SPA <u>SPAIN</u> Dr. J. Paniagua A r e l l a n o Subdirector General de Sanidad Animal Ministerio de Agricultura Madrid /Espagne SWE SWEDEN Dr. B. H e n r i c s o n Head of Department Lantbruksstyrelsen National Board of Agriculture Veterinary and Animal Production Department Vallgatan 6 S-551 83 Jönköping /Sweden

SWI <u>SWITZERLAND</u> Dr. A. Wandeler

> Dr. F. S t e c k Vet.Bacteriological Institute University of Berne Länggass Str. 122 CH-3001 Bern /Switzerland

Dr. K. B ö g e l World Health Organization CH-1211 Geneva /Switzerland

TUR TURKEY Dr. Hasan E r t a n General Director of Vet.Serv.

> Dr. F. Yücel Director, Zoonoses Department Gida-Tarim ve Hayvancilik Bakanligi, Ministry of Agricult. Ankara /Turkey

UNION OF SOVIET SOCIALIST <u>REPUBLICS</u> Prof. B. C h e r k a s s k i y Chief of Zoonoses Laboratory

Prof. V. P o k r o v s k i y Head of Central Institute Central Institute of Epidemiology Ministry of Public Health Moscow /USSR

YUG <u>YUGOSLAVIA</u> Dr. M. B u g a r s k i Head, Veterinary Department Federal Commitee for Agriculture Belgrad /Yugoslavia

> Dr. Milos Petrović Institut Pasteur Hajduk Velikova 1 21000 Novi Sad /Yugoslavia

