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C O N T E N T S

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1. INTRODUCTION

This issue describes the reported rabies cases in Europe for the 1st quarter 1982. The situation is described in general under 2 and in individual countries under 2.1 to 2.26. The rabies case data are tabulated under 4.

Rabies data for the 1st quarter 1982 have not yet been received from Czechoslovakia and the German Democratic Republic. The rabies data for both the 4th quarter 1981 and 1st quarter 1982 for the European part of the USSR have also not arrived.

In Section 3. an article on oral immunisation of foxes against rabies very briefly describes field trials carried out in Switzerland. Some of the problems, techniques and results are mentioned. Also in section 3 is a short article on rabies in Greece 1966-1980 and a further note on the case of human rabies acquired in Ruanda described in Bulletin 4/81.

The geographical distribution of rabies incidence in Europe during the 1st quarter 1982 is shown on the maps in the annex.

2. RABIES IN EUROPE, 1ST QUARTER 1982

A total of 5640 rabies cases were reported in the 1st quarter 1982 (no data from Czechoslovakia and the German Democratic Republic). There were 1055 cases in domestic animals and 4585 in wild animals. Of the cases in wild animals 4181 were foxes, 149 badgers or other mustelids, 199 deer and 56 in other species. There were 388 cases in dogs (83% of which were reported from Turkey) 187 cases in cats, 263 in cattle and 217 in other domestic animals.

All countries except Rumania and Turkey reported more cases than in the previous quarter and the total rose by 1360 cases from 4280 in the 4th quarter 1981 (excluding Czechoslovakia and the German Democratic Republic).

An advance of the frontwave was seen in a number of areas. In Belgium rabies spread northwards and westwards, and in France the southern tip of the front moved slowly into the department Isère. Switzerland reported the disease entering a number of side valleys of the river Rhine in Graubünden and penetration into Canton Uri from the North. The disease continued to spread in several affected areas of Italy and an increase of cases was reported from the whole northern strip of Yugoslavia.

Monthly figures of diagnosed rabies cases are available from the Federal Republic of Germany, France, Hungary, Poland and Switzerland. These countries reported almost twice as many cases of rabies in foxes in March 1982 as in January. This is shown in the table overleaf.

1065 more cases of rabies were reported in the 1st quarter 1982 than in the 1st quarter 1981 (omitting Czechoslovakia and the German Democratic Republic); 4575 were registered in the 1st three months 1981 compared with 5640 in 1982.

Country	January	February	March
Federal Rep. of Germany	323	421	626
France	170	239	376
Hungary	145	184	229
Poland	21	26	43
Switzerland [1)]	46	62	77
Total:	705	932	1351

Table: Cases of fox rabies diagnosed in the Federal Republic of Germany, France, Hungary, Poland and Switzerland, in the first three months of 1982.

1) data for canton Vaud diagnosed histologically are not included.

Individual country reports follow:

2.1 Rabies in Austria (AUT)

by W. Krocza and E. Scharfen

In the 1st quarter 1982, 261 cases of rabies were diagnosed. Of the total, there were 251 cases in wild animals and 10 in domestic animals. In comparison with the 4th quarter of 1981 with 185 rabies cases (181 in wild animals and 4 in domestic animals) there has be an increase of diagnosed rabies cases of about 41%.

The frontwave of the epizootic is at present located in the districts Amstetten, Scheibbs, Melk, St. Pölten/Land, Lilienfeld and Neunkirchen in Lower Austria as well as in the adjoining district of Mürzzuschlag in Styria. The centre of the epizootic in Styria, comprises the districts Judenburg, Knittelfeld, Voitsberg, Graz-Umgebung, Weiz and Leibnitz.

The Burgenland border districts of Neusiedler See, Oberpullendorf, Oberwart, Güssing and Jenningsdorf registered an increase of rabies cases. Isolated cases of rabies were reported from most districts of Carinthia, from the district of Lienz in East Tirol, from the northern parts of the districts Kufstein, Innsbruck/Land and Reutte in Tirol and also from Bregenz in Vorarlberg.

The Länder Vienna, Upper Austria and Salzburg were free of rabies.

2.2 Rabies in Belgium (BEL)

by R. Depierreux

135 rabies cases in 71 communities were reported during the 1st quarter 1982. There were 91 cases in foxes, 6 cases in other wild animals, 14 cattle, 12 sheep, 1 horse and 11 cats.

48% more cases were reported than in the 4th quarter 1981 (91 cases). This was primarily due to a spread of the disease in the south of the province of Luxembourg where 56 cases were reported from 27 communities compared with only 13 cases in 6 communities in the previous quarter. The

evolution of the disease in this area does not come as a surprise. On the contrary because of the heavy infection in adjoining departments of France, it was anticipated.

In the north of the province of Luxembourg, rabies cases were somewhat scattered. Nevertheless a movement of the epizootic in the direction of the province of Namur could be seen.

In contrast to the above areas, rabies noticeably regressed in the south east of the province of Liège. Only 34 cases were diagnosed from this area compared with 65 in the preceding quarter.

2.3 Bulgaria (BUL)

The country remained rabies-free.

2.4 Rabies in Czechoslovakia (CZE)

No data was obtained for the 1st quarter 1982.

2.5 Rabies in Denmark (DEN)

by S. Møllgaard

One case of rabies was diagnosed during the reporting period.

After 11 months with no rabies cases in Denmark, a cow was diagnosed rabid on March 10th. The cow came from a farm about 10 km south of the town of Ribe. It was born on the same farm and in 1980 had grazed, from May to November, on areas near the farm. No wild animals (especially foxes) had been suspected of being rabid during the grazing period.

The gassing of fox dens in the area has been started and will continue during April and May. Poisoning of foxes with strychnine has been carried out in plantations of the district.

2.6 Rabies in Germany, Democratic Republic (DDR)

No data was obtained for the 1st quarter 1982.

2.7 Rabies in Germany, Federal Republic (DEU)

A total of 1738 rabies cases were diagnosed in the Federal Republic of Germany during the 1st quarter 1982. 90.2% of the cases were in wild animals, 1370 (78.8%) in foxes, 76 in badgers and other mustelids, 120 in deer and 21 in other or unspecified species. Of the 170 cases in domestic animals, 55 were cats, 16 dogs and 99 were farm animals.

In comparison with the previous quarter the total number of diagnosed cases rose by 362 or 26%. Cases in foxes increased by more than 50% from 896 in the 4th quarter 1981 whereas cases in domestic animals decreased from 303 to 170 due mainly to fewer cases of cattle rabies.

With the exception of Bavaria, every Land reported an increase of diagnosed rabies cases. Notable developments included a further increase of cases in south west Nordrhein-Westfalen and a movement eastwards in the

north of Rheinland-Pfalz. In Hessen, especially the northern half, the number of cases markedly increased (from 211 to 379) and more than twice as many cases were reported from the northern half of Baden-Württemberg (99 to 205) particularly in the Black Forest area.

Nordrhein-Westfalen and Niedersachsen contributed rabies data at community level for the first time, and thereby complete community level reporting for the whole country.

2.8 Finland (FIN)

The country remained rabies-free.

2.9 Rabies in France (FRA)

by J. Blancou

1023 rabies cases were reported during the 1st quarter 1982, 196 more than in the 4th quarter 1981 (24% increase). There were 785 diagnosed cases in foxes (76.7% of total), 32 in other wild animals and 206 in domestic animals (25 dogs, 22 cats, 72 cattle, 75 sheep and goats, 10 horses and 2 in unspecified species).

The majority of cases in domestic animals were in the departments of La Meuse, La Moselle, Meurthe et Moselle, Doubs, Côte d'Or and Vosges.

The general tendencies described in the preceding quarter were confirmed, in particular, the limitation in the advance of the front towards the west. At the southern end of the rabies front, i.e. the Haute Savoie, there is a slow but progressive spread southwards into the department of L'Isere.

2.10 Rabies in Greece (GRE)

Rabies was diagnosed in one dog during the 1st quarter 1982.

The dog came from the department of Evros (adjacent to the border with Turkey). All three cases of rabies reported from Greece in 1981 came from this department.

2.11 United Kingdom (GBR)

The country remained rabies-free.

2.12 Rabies in Hungary (HUN)

A total of 601 rabies cases were diagnosed in Hungary during the first three months of 1982. 558 or 92.8% of the total were foxes. There were 11 cases in dogs (1.8%), 17 in cats, 8 in cattle, 1 in sheep and 6 in other wild species. 229 more cases were reported than in the 4th quarter 1981, an increase of 61.6%. This was the highest quarterly total since the 1st quarter 1978.

Small increases or decreases were reported from the Komitates of the south east: Bács Kiskun, Csongrád, Békés, Szolnok, and Hajdu Bihar reported

a total of 88 cases in the 1st quarter 1982 compared with 86 in the 4th quarter 1981.

Notable increases were seen in Borsod-Abauj-Zemplen and Szabolcs-Szatmár in the north east where the rabies total rose from 39 to 91 cases. In Vas, Veszprém, Györ Sopron, Komáron, Fejér and Pest in the north, centre and west, the increase was from 144 to 265. Local concentrations of cases were found in the west of Vas Komitate and in the town of Varpalota in west central Hungary.

2.13 Ireland (IRE)

The country remained rabies-free.

2.14 Rabies in Italy (ITA)
by S. Prosperi

112 cases of rabies were reported during the 1st quarter 1982. There were 98 cases in foxes, 12 in badgers, 1 in a polecat and 1 red deer. No cases were diagnosed in domestic animals. The number of cases increased from 79 in the 4th quarter 1981 and the pattern of progressive spread observed in preceding quarters was confirmed.

The number of infected municipalities was 45 and the highest so far. In 22 of these municipalities rabies was reported for the first time; 5 in the province of Bolzano, 2 in Udine, 1 in Trieste, 6 in Gorizia, 1 in Belluno, 6 in Sondrio and 1 in the province of Brescia. Rabies was reported for the first time from the province of Gorizia.

There are three distinct areas of rabies infection. The first, in the provinces Udine, Gorizia and Trieste spread westwards from Yugoslavia. The second area in the provinces Sondrio, Bolzano and Brescia, is due to infections from Switzerland and Austria. The third area is a region with a few scattered cases situated between the first two areas and affecting northern parts of Udine and Belluno.

(Due to the continuing spread of rabies into new communities in Italy the table of rabies data at community level has become too long to be used in the Bulletin. A table showing rabies cases at the level of province has been substituted. Data at community level continues to be available.)

2.15 Rabies in Luxembourg (LUX)
by R. Frisch

Rabies occurrence in the Grand Duchy of Luxembourg increased markedly during the 1st quarter 1982. A total of 33 rabies cases were reported (27 cases in the 4th quarter 1981) of which 27 were foxes, 2 cattle, 2 sheep, 1 roe deer and 1 cat.

All owned dogs, older than 3 months, will be obligatorily vaccinated or revaccinated in May and June 1982. This is a protective measure before the beginning of the holiday period. The vaccination costs are to be paid by the owner.

2.16 Netherlands (NET)

The country remained rabies-free.

2.17 Rabies in Norway (NOR)

No case of rabies was reported from the Island of Svalbard during the 1st quarter 1982.

2.18 Rabies in Poland (POL)

During the 1st quarter 1982, 143 cases of rabies were diagnosed in Poland. There were 90 cases (62.9%) in foxes, 31 (21.7%) in deer, 9 in cats, 4 in other domestic animals and 9 in other wild animals.

In comparison with the 4th quarter 1981, reported rabies increased by 40 cases or 39%. The number of cases in domestic animals decreased from 26 in the 4th quarter 1981 to 13 in the 1st quarter 1982 whereas cases in foxes and deer increased from 60 and 7 in the 4th quarter to respectively 90 and 31 in the 1st quarter 1982.

The departments, Koszalin in the north west and Walbrzych in the south west reported a total of 61 cases compared with only 14 in the previous quarter. Elblag and Olsztyn in the north both reported 11 cases of rabies and Szczecin and Wroclaw reported 12 and 8 cases. All other departments reported 5 cases of fewer and in the south and east of Poland a total of only 9 cases was registered from 22 departments.

2.19 Portugal (POR)

The country remained rabies-free.

2.20 Rabies in Rumania (RUM)

A total of 32 cases were reported during the 1st quarter 1982. There were 22 cases diagnosed in wild animals, 21 foxes and 1 badger. In domestic animals, 2 dogs, 1 cat, 2 horses and 5 sheep, were diagnosed rabid. In the previous quarter when 32 rabies cases were also reported, there were 12 cases in foxes, 18 in domestic animals and 2 in unspecified wild animals.

21 of the rabies cases in the 1st quarter were in the western third of the country in the regions Satu-Mare, Salaj, Cluj, Bistrita Nasaud, Alba, Arad, Hunedoara and Caras-Severin. 5 rabies cases were reported from the regions Ialomita, Calarasi and Giurgiu in the south east and 6 cases from the regions Iasi, Vaslui, Bacau and Vrancea in the north west. No cases were reported from the central area of Rumania.

2.21 Rabies in Spain (SPA)
by M.A. Diaz Yubero

One case of dog rabies was diagnosed in laboratory tests during the 1st quarter 1982. It came from the town of Ceuta on the coast of North Africa, and not from mainland Spain. Very strict veterinary police measures have been enforced.

2.22 Sweden (SWE)

The country remained rabies-free.

2.23 Rabies in Switzerland (SWI)
by A. Wandeler

During the first quarter of 1982, the Swiss rabies diagnostic centre received 1098 animals for examination. 273 (23%) of these were positive for rabies, compared with 232 (20% of 1152 animals) in the previous quarter, and with 252 (20% of 1237) in the first quarter of the previous year. 68% were in foxes and 21% in domestic animals. Two thirds of the domestic animal cases were in cats. In Switzerland cat vaccination is not compulsory; it is recommended with very little success.

An additional 108 cases (88 foxes, 5 badgers, 7 martens, 1 polecat, 6 roe deer, and 1 chamois) were diagnosed histologically in canton Vaud, bringing the total of proven rabid animals to 381 (328 in the previous quarter).

The frontwave of the epizootic advanced very little in canton Fribourg. The disease entered several side valleys of the river Rhine in canton Graubünden however and also penetrated into canton Uri from the north.

During the period of observation 12 persons were bitten by proven rabid animals: 7 by cats, 2 by stone-martens, 1 by a fox, 1 by a dog and 1 by a sheep. A much larger but imprecisely known number of people receive antirabies treatment for real or supposed non-bite exposure to rabid animals.

2.24 Rabies in Turkey (TUR)

During the 1st quarter 1982, 503 cases of rabies in animals were diagnosed. There were 489 cases in domestic animals of which 322 (64%) were dogs, 22 (4.4%) cats, 111 (22.1%) cattle and 34 other farm animals. Of the 14 cases in wild animals 7 were wolves and 7 house mice.

Although there were 35 fewer cases than in the preceding quarter, there were 16 more cases in dogs but 59 cases fewer in farm animals.

The highest density of rabies were in the provinces Istanbul, Bursa, Izmir, Aydin, Sakarya, Ankara, Amasya, Samsun, Ordu and Giresun. These 10 provinces reported 269 or more than half the total cases. The 3 provinces Edime, Tekirda and Kirklareli to the west of Istanbul reported only 8 cases in contrast to 34 in the previous quarter. In the south of the country, the

provinces Icel, Adana, Antep and Diyarbakir reported 32 cases compared with 9 in the 4th quarter 1981.

One wolf was diagnosed rabid in each of the following provinces; Bolu, Bursa, Cankiri, Corum, Gümüshane, Istanbul and Sinop. During the whole of 1981 there were 8 cases in wolves, in 1980 there was one case, in 1979 no cases and in 1978 2 cases.

2.25 Rabies in Yugoslavia (YUG)

A total of 674 rabies cases of which 642 (95.3%) were foxes, were reported from Yugoslavia for the 1st quarter 1981. There were also 5 dogs, 8 cats, 3 cattle and 16 unspecified animals.

In comparison with the preceding quarter, the number of cases more than doubled from 322. The number of cases in wild animals increased from 300 in the 4th quarter 1981 to 657 in this quarter whereas the number of cases in domestic animals fell from 22 to 17.

During 1981, rabies occurrence and spread primarily affected Slovenia with a more sporadic rabies occurrence affecting the other northern regions of Yugoslavia - Croatia and Wojwodina. Rabies affected the whole of this northern strip in the first quarter of 1982 and a concentration of cases in western Croatia suggested a spread of infection from Slovenia. All three regions reported an increase compared with the preceding quarter; from 224 to 283 in Slovenia, from 42 to 260 in Croatia and from 56 to 124 in Wojwodina. 7 cases were reported from Serbia and Kosovo. As in the previous quarter, the community Nova Gorica on the border with Italy was most heavily infected (57 cases).

(Due to the continuing spread of rabies into new districts in Yugoslavia, the table of rabies data at district level has become too long to be used in the Bulletin. A table showing rabies cases at regional level has been substituted. Data at district level continues to be available.)

2.26 Rabies in the Union of Soviet Socialist Republics (USSR)

No data was obtained for the 4th quarter 1981 and for the 1st quarter 1982.

3. MISCELLANEOUS

3.1 Oral Immunisation of Foxes Against Rabies [1)]

In contrast to the situation in many other epidemic diseases, naturally acquired immunity plays an extremely limited role in rabies epidemiology. Active immunisation with live attenuated or inactivated rabies vaccine has been successful in eradicating the disease in a reservoir such as dogs. The concept of controlling rabies within a wildlife reservoir by active immunisation is therefore attractive. There are many practical difficulties however, in particular, that only immunisation by the oral route can be successful on a large scale.

Some problems have been partially solved e.g. bait administration and vaccine stability but others are still open. Among these are the possibility of residual pathogenicity and reversion to virulence of attenuated viruses used as vaccine, and the possibility of selection of antigenic variants in the immune population. Such problems could hardly be answered by laboratory studies.

Since 1978, field trials in Switzerland have attempted to stop the spread of two outbreaks of rabies at the frontwave of an epizootic.

The field trials have been carried out in an area where all available information indicates the fox as the main reservoir, vector and victim of rabies. Switzerland was first reached by the fox rabies epizootic in 1967 since when it has swept through large parts of the country in three major movements. The alpine chain over 2000 m has acted as a more or less efficient barrier to the spread of the disease and several alpine valleys have remained free of the disease over long periods.

The canton of Valis was chosen for the study because it is a well defined area surrounded by high alpine chains which function as natural barriers. The canton was free of rabies before 1978 but was threatened by a rapidly advancing front of fox rabies which reached lower parts of the canton in summer 1978. As the vaccination campaign began, one case of fox rabies was diagnosed from just east of Martigny within the first vaccination zone and there were numerous cases between Martigny and Lake Geneva.

Fox population density below 1500 m was estimated to be well above the critical population density reflected by 0.3 to 0.4 foxes killed/km^2/year below which rabies epizootics tend to die out. No obvious difference in fox population density was found between the parts of the valley below or above Martigny, the line at which the first outbreak came to a standstill.

The vaccination zone was located during the first outbreak essentially between Monthey and Sion. The zone was later adapted to the epidemic situation and covered the valley bottom and the slopes up to 1500 - 1700 m. During the second outbreak following January 1980, the vaccination zone was located between Ardon and Erschmatt, close to Leuk.

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1) Abstracted from manuscript 'Oral Immunisation of Foxes Against Rabies. A Field Study', by F. Steck, A. Wandeler, P. Bichsel, S. Capt and L.G. Schneider to be published in Zentralblatt für Veterinärmedizin, Reihe B.

The size of the vaccination zones and the timing were adjusted to some extent to the changing epidemiological situation. It was attempted to create a zone about 30 - 50 km deep astride of the advancing front of the epizootic, i.e. including an infected and, ahead of the front, an uninfected zone.

March and October where chosen as the most suitable months for vaccination mainly because of the climatic conditions avoiding temperatures above 20°C in the summer and below freezing in the winter. Additional vaccinations were carried out when considered necessary to deal with a particular epidemiological development.

The SAD-strain of rabies virus adapted to and grown on BHK_{21} cells was used. The vaccine was dispensed in small heat sealed plastic containers and fixed between the skin and skull of slaughterhouse chicken heads.

The baits were laid out by hand and covered against direct sun and eyesight with leaves, mostly on the banks of roads and on trails. Attraction of foxes was therefore, mostly by smell. A helicopter was used along the upper limits of the vaccination zones, which were, particularly in March, not easily accessible because of snow.

In view of the variations in topographical, ecological and epidemiological conditions, it is very difficult to establish an adequate control to the experimental areas. Comparions to parallel situations and a close surveillance of the epizootic in the study area had to be relied on to assess the effects of vaccination.

The effect of vaccination on the development of the epizootic.

In most alpine valleys (Bernese Oberland, Schwyz, Glarus, Graubünden, but also Austria) rabies has a tendency to spread up to their blind ends to altitudes of 1000 to 1500 m above sea level and to persist for longer periods.

In the Canton of Graubünden, which is comparable and almost symmetrical to the Valais in its topographical outlay, rabies has swept through all valleys and is still persisting today, ten years after its first appearance. In the Valais, rabies stopped near Martigny at the bend of the valley where there is a continuous level valley floor at an altitude of 460 m. Rabies neither progressed up the main valley, nor to the Val de Bagnes, despite the front being about 5 - 10 km wide with many cases occuring near Trient.

In both outbreaks vaccination seemed to "freeze in" any progression of the disease. Within the epidemic focus an effect on the incidence of rabies became noticeable within 1 - 2 months after vaccination. In the border zone to the non-vaccinated area, rabies persisted longer and a few scattered cases occurred up to six months after the epizootic had faltered. These may well have been animals with long incubation periods. Thereafter, no further rabies cases occurred. Rabies has of course also disappeared temporarily from non-vaccinated areas around the lake of Geneva, as it usually does in the frontwave pattern of spread.

The percentage of foxes reached by baiting, i.e. up to about 60%, was lower than aimed for (as assessed by chlorotetracycline marking and bait uptake). This may be a consequence of the particular topographical

situation since only the valley floor and the accessible parts of the slopes up to 1500 m, or 22.5% of the total surface of a valley cross section, were reached by baiting.

Rabies has disappeared from the Rhone valley above lake of Geneva; the last case being recorded 18 months ago. Surveillance was mainly based on examination of clinically suspicious foxes, which are, according previous experience the best indicators of rabies prevalence. Vaccination was thereafter stopped in the areas above Martigny. A "protective belt" of vaccination was however, established between Martigny and lake of Geneva, reaching over the Col des Mosses into the Pays d'Enhaut and through the Simmental to the lake of Thun. Since a rabies focus was near Lauterbrunnen, the region of Interlaken, Grindelwald and Lauterbrunnen was also included. The whole area behind this zone appears to be or has become rabies-free. Three and a half years after vaccination was started however, a new epizootic wave is reaching and challenging the protective belt.

Safety in respect to the use of a live attenuated vaccine.

Until the end of 1981, a total of 62'000 vaccine baits had been distributed in the field (including 10'000 in the canton of Berne). About 40'000 were laid out in zones free of rabies. No rabies virus isolates were made from these regions thereafter and no unusual epidemiological features were observed during the outbreaks.

None of 40 field isolates tested from the Valais turned out to be vaccine virus. They had, in tissue culture, and as far as tested with monoclonal antibodies, reaction patterns typical of field strains. There is therefore, no evidence from this study that the SAD strain may become established in nature.

3.2 Rabies in Greece 1966-1970

by M. Mastroyanni and O. Mangana

An increase in the number of rabies cases was seen in Greece after the second world war. This rose to a peak of 1153 cases in domestic animals in 1954 and thereafter gradually decreased. From 1966, the decrease was more rapid so that in 1980 no more cases were seen in domestic or wild animals - see Table and Figure overleaf. Of the 1093 rabies cases diagnosed since 1966, there were approximately 64% in dogs, 1% in cats, and 35% in farm animals. Two cases in foxes were diagnosed.

Rabies diagnosis in Greece is carried out by two official laboratories: The Veterinary Institute of Infection and Parasitic Diseases Virus Laboratory and The Veterinary Institute of Thessalonika. The former also prepares and distributes rabies vaccines for animals. Immunofluorescence and the mouse inoculation test are used for rabies diagnosis.

There have been two cases of rabies in man since 1966 - one in 1966 and one in 1970.

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Total
Hellas	17	7	3	1	-	-	-	-	-	-	-	-	-	-	-	28
Peloponese	34	6	9	19	9	7	5	17	6	15	8	4	2	-	-	141
Thrage	35	33	6	3	20	13	18	13	20	23	8	6	-	2	-	200
Macedonia	105	153	61	86	38	29	24	17	11	6	-	-	-	-	-	530
Epirus	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	9
Thessaly	56	48	36	24	11	2	2	1	1	1	2	1	-	-	-	185
Islands and Crete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
TOTAL	249	250	119	133	78	51	49	48	38	45	18	11	2	2	-	1093

Table: Rabies in Greece

Figure: The regions of Greece

3.3 Human Rabies Acquired in Ruanda
(see also Bulletin 2/81 and 4/81)

On May 7th 1981, an american in Ruanda was bitten by a dog. A course of human diploid cell vaccine was started the same day but no human rabies globulin was administered. After arriving at the belgian hospital (26 days later) the patient was treated intramuscularly with 20 International Units (IU) of human rabies immune globulin per kg of body weight. Death occurred 62 days after being bitten. Immunofluorescence and isolation studies for rabies virus were negative though rabies antibody titer was 827 IU/ml in the serum, and 82 IU/ml in the cerebrospinal fluid (CSF). No previous exposure to another animal was reported.

Rabies antibody, especially in such high titers, has not been reported in the CSF of persons who have received only rabies vaccine. However, high titers of rabies antibody do occur with clinical rabies, and such high CSF antibody levels are commonly accepted as diagnostic for rabies. The diagnosis of rabies therefore is most probable for this patient. Despite the prompt and correct use of the human diploid cell rabies vaccine, human rabies immune globulin was omitted from the patient's initial post-exposure prophylactic regimen, and may be related to the failure of treatment. Studies have shown that the combination of human rabies immune globulin plus vaccine is better than either alone in preventing rabies, presumably because globulin provides passive antibody protection during the period when vaccine has not yet induced active antibody protection.

This episode, by demonstrating that even the new, highly potent human diploid cell vaccine cannot by itself prevent rabies, reinforces the need for human rabies immune globulin for all persons receiving post-exposure rabies prophylaxis who have not had prior rabies vaccination.

(taken from Morbidity and Mortality Weekly Report, March 19th, 1982).

3.4 Erratum

Bulletin 4/81: Page 2 'Rabies in Austria' - The 4th paragraph should read:

'In the Burgenland, in East Austria, sporadic cases were recorded in districts - near the border with Hungary' and not '..... near the border with Czechoslovakia'. The mistake was made by the Editor.

TABLE 1

EUR EUROPE **1/82** RABIES CASES 1. 1.82 - 31. 3.82

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
AUT	AUSTRIA	-	6	2	-	2	-	10	226	8	2	15	-	251		261
BEL	BELGIUM	-	11	14	1	12	-	38	91	1	4	1	-	97		135
BUL	BULGARIA *							0						0		0
CZE	CZECHOSLOVAKIA 1)															-
DEN	DENMARK	-	-	1	-	-	-	1						0		1
DDR	GERMAN DEM. REP. 1)															-
DEU	FED.REP. OF GERMANY	16	55	42	12	44	1	170	1370	27	49	120	2	1568		1738
FIN	FINLAND *							0						0		0
FRA	FRANCE	25	22	72	10	75	2	206	785	11	-	5	16	817		1023
GBR	UNITED KINGDOM *							0						0		0
GRE	GREECE	1	-	-	-	-	-	1						0		1
HUN	HUNGARY	11	17	8	-	1	-	37	558	3	-	2	1	564		601
IRE	IRELAND *							0						0		0
ITA	ITALY							0	98	12	1	1	-	112		112
LUX	LUXEMBOURG	-	1	2	-	2	-	5	27	-	-	1	-	28		33
NET	NETHERLANDS *							0						0		0
NOR	NORWAY *							0						0		0
POL	POLAND	1	9	2	1	-	-	13	90	2	1	31	6	130		143
POR	PORTUGAL *							0						0		0
RUM	RUMANIA	2	1	-	2	5	-	10	21	1	-	-	-	22		32
SPA	SPAIN 2)	1	-	-	-	-	-	1						0		1
SWE	SWEDEN *							0						0		0
SWI	SWITZERLAND + LIECHT	4	35	6	-	12	-	57	273	10	17	23	2	325		382
TUR	TURKEY	322	22	111	6	23	5	489	-	-	-	-	14	14		503
YUG	YUGOSLAVIA	5	8	3	-	-	1	17	642	-	-	-	15	657		674
TOTAL		388	187	263	32	176	9	1055	4181	75	74	199	56	4585	0	5640
PER CENT		6.9	3.3	4.7	0.6	3.1	0.2	18.7	74.1	1.3	1.3	3.5	1.0	81.3	0.0	100.0

550
504
14
6694

* NO CASES, 1) NO DATA, 2) IN NORTH AFRICA.

TABLE 2

EUR E U R O P E **1/82** R A B I E S C A S E S 'OTHER ANIMAL SPECIES' 1. 1.82 - 31. 3.82

LOCATION CODE	NAME	OTHER DOMESTIC ANIMALS			OTHER WILD ANIMALS								TOTAL
		DONKEY	PIG	OTHERS	WOLF	RACOON DOG	WILD CAT	WILD BOAR	MOUFLON	CHAMOIS	HOUSE MOUSE	MUSKRAT	OTHERS	
DEU	FED.REP. OF GERMANY	1	-	-	-	-	-	1	1	-	-	-	-	3
FRA	FRANCE	-	2	-	-	-	-	-	-	-	-	-	16	18
HUN	HUNGARY	-	-	-	-	-	1	-	-	-	-	-	-	1
POL	POLAND	-	-	-	-	3	-	2	-	-	-	1	-	6
SWI	SWITZERLAND + LIECHT	-	-	-	-	-	-	-	-	2	-	-	-	2
TUR	TURKEY	5	-	-	7	-	-	-	-	-	7	-	-	19
YUG	YUGOSLAVIA	-	-	1	-	-	-	-	-	-	-	-	15	16
TOTAL		6	2	1	7	3	1	3	1	2	7	1	31	65
PER CENT		9.2	3.1	1.5	10.8	4.6	1.5	4.6	1.5	3.1	10.8	1.5	47.7	100.0

AUT AUSTRIA — RABIES CASES — 1. 1.82 - 31. 3.82

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		
B2	GUESSING							0	5	-	-	-	-	5		5
B3	JENNERSDORF							0	3	-	-	-	-	3		3
B4	MATTERSBURG							0	1	-	-	-	-	1		1
B5	NEUSIEDL AM SEE							0	2	-	-	-	-	2		2
B6	OBERPULLENDORF							0	3	1	-	-	-	4		4
B7	OBERWART							0	14	1	-	-	-	15		15
K1	HERMAGOR							0	2	-	-	-	-	2		2
K3	ST. VEIT	-	1	-	-	-	-	1						0		1
K4	SPITTAL/DRAU	-	-	-	-	2	-	2	2	-	-	-	-	2		4
K5	VILLACH-LAND							0	2	-	-	-	-	2		2
K6	VOELKERMARKT							0	4	-	-	-	-	4		4
K7	WOLFSBERG							0	1	-	-	-	-	1		1
N1	AMSTETTEN							0	1	-	-	-	-	1		1
N10	LILIENFELD	-	1	-	-	-	-	1	7	1	-	1	-	9		10
N11	MELK							0	3	-	-	-	-	3		3
N14	NEUNKIRCHEN							0	16	1	1	1	-	19		19
N15	ST. POELTEN-LAND							0	3	-	-	-	-	3		3
N16	SCHEIBBS							0	10	1	-	-	-	11		11
N24	WAIDHOFEN/YBBS							0	1	-	-	-	-	1		1
ST1	BRUCK/MUR							0	2	1	-	1	-	4		4
ST2	DEUTSCHLANDSBERG							0	1	-	-	-	-	1		1
ST5	GRAZ-LAND							0	12	1	-	1	-	14		14
ST7	JUDENBURG							0	21	-	-	1	-	22		22
ST8	KNITTELFELD							0	29	-	-	4	-	33		33
ST9	LEIBNITZ							0	10	-	-	-	-	10		10
ST10	LEOBEN							0	3	-	-	-	-	3		3
ST11	LIEZEN							0	-	-	-	1	-	1		1
ST12	MUERZZUSCHLAG	-	-	1	-	-	-	1	16	1	1	3	-	21		22
ST13	MURAU							0	1	-	-	-	-	1		1
ST15	VOITSBERG	-	2	1	-	-	-	3	21	-	-	1	-	22		25
ST16	WEIZ	-	2	-	-	-	-	2	4	-	-	-	-	4		6
T2	INNSBRUCK-LAND							0	8	-	-	-	-	8		8
T4	KUFSTEIN							0	8	-	-	-	-	8		8
T5	LANDECK							0	1	-	-	-	-	1		1
T6	LIENZ							0	4	-	-	-	-	4		4
T7	REUTTE							0	3	-	-	1	-	4		4
V2	BREGENZ							0	2	-	-	-	-	2		2
TOTAL		0	6	2	0	2	0	10	226	8	2	15	0	251	0	261
PER CENT		0.0	2.3	0.8	0.0	0.8	0.0	3.8	86.6	3.1	0.8	5.7	0.0	96.2	0.0	100.0

RABIES CASES 1. 1.82 - 31. 3.82

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		
BEL	BELGIUM															
LG	LIEGE	-	4	5	-	6	-	15	28	1	1	1	-	31		46
LX	LUXEMBOURG	-	7	9	1	6	-	23	63	-	3	-	-	66		89
TOTAL		0	11	14	1	12	0	38	91	1	4	1	0	97	0	135
PER CENT		0.0	8.1	10.4	0.7	8.9	0.0	28.1	67.4	0.7	3.0	0.7	0.0	71.9	0.0	100.0
DEN	DENMARK															
055571	RIBE	-	-	1	-	-	-	1						0		1
GRE	GREECE															
10	EVROS	1	-	-	-	-	-	1						0		1
SPA	SPAIN															
	CEUTA *	1	-	-	-	-	-	1						0		1

* IN NORTH AFRICA.

DEU FEDERAL REPUBLIC OF GERMANY — RABIES CASES — 1. 1.82 - 31. 3.82

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		
010	SCHLESWIG-HOLSTEIN	-	1	-	-	-	-	1	10	1	-	-	-	11		12
020	HAMBURG							0						0		0
031	BRAUNSCHWEIG	-	3	-	-	-	-	3	14	-	2	1	1	18		21
032	HANNOVER	-	-	2	-	2	-	4	28	1	1	6	-	36		40
033	LUENEBURG	1	2	1	1	1	-	6	48	-	1	2	-	51		57
034	WESER-EMS	-	-	1	-	-	-	1	12	-	-	1	-	13		14
040	BREMEN							0						0		0
051	DUESSELDORF							0	1	-	-	-	-	1		1
053	KOELN	1	1	-	-	1	-	3	47	1	-	-	-	48		51
055	MUENSTER							0						0		0
057	DETMOLD	1	3	8	2	5	-	19	54	1	1	5	-	61		80
059	ARNSBERG	1	1	-	-	1	-	3	22	1	1	6	-	30		33
061	DARMSTADT	2	2	8	3	2	-	17	119	-	2	5	-	126		143
062	KASSEL	2	10	4	1	7	-	24	170	1	7	34	-	212		236
071	KOBLENZ	-	4	1	1	8	-	14	97	1	6	7	-	111		125
072	TRIER	2	5	7	2	11	1	28	72	-	2	1	1	76		104
073	RHEINHESSEN-PFALZ	-	3	-	-	5	-	8	11	-	-	3	-	14		22
081	STUTTGART	-	3	-	-	-	-	3	62	1	1	3	-	67		70
082	KARLSRUHE	-	3	-	-	1	-	4	110	3	5	13	-	131		135
083	FREIBURG	1	2	1	-	-	-	4	92	4	2	3	-	101		105
084	TUEBINGEN	-	5	1	1	-	-	7	139	9	8	17	-	173		180
091	OBERBAYERN	1	4	5	-	-	-	10	119	2	8	6	-	135		145
092	NIEDERBAYERN							0	7	1	-	-	-	8		8
093	OBERPFALZ	1	-	1	-	-	-	2	28	-	-	1	-	29		31
094	OBERFRANKEN	1	1	-	-	-	-	2	26	-	-	-	-	26		28
095	MITTELFRANKEN	1	-	-	-	-	-	1	4	-	-	-	-	4		5
096	UNTERFRANKEN	1	-	1	-	-	-	2	28	-	1	2	-	31		33
097	SCHWABEN	-	2	1	1	-	-	4	39	-	1	3	-	43		47
100	SAARLAND							0	11	-	-	1	-	12		12
110	BERLIN (WEST)							0						0		0
TOTAL		16	55	42	12	44	1	170	1370	27	49	120	2	1568	0	1738
PER CENT		0.9	3.2	2.4	0.7	2.5	0.1	9.8	78.8	1.6	2.8	6.9	0.1	90.2	0.0	100.0

FRA FRANCE — RABIES CASES — 1. 1.82 - 31. 3.82

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	AIN	-	-	-	-	1	-	1	3	-	-	-	-	3		4
02	AISNE	-	1	-	-	-	-	1	52	-	-	-	-	52		53
08	ARDENNES	2	1	5	-	-	-	8	12	-	-	-	-	12		20
10	AUBE							0	6	-	-	-	-	6		6
21	COTE D'OR	1	1	4	1	8	1	16	83	-	-	-	1	84		100
25	DOUBS	4	5	4	-	7	-	20	152	1	-	2	3	158		178
38	ISERE							0	11	1	-	-	-	12		12
39	JURA	-	1	-	-	2	-	3	44	1	-	-	-	45		48
51	MARNE	-	1	1	-	-	-	2	18	-	-	-	-	18		20
52	MARNE (HAUTE)	-	-	-	-	-	1	1	19	-	-	-	-	19		20
54	MEURTHE-ET-MOSELLE	3	2	12	3	4	-	24	102	1	-	1	3	107		131
55	MEUSE	8	3	31	4	24	-	70	40	1	-	-	3	44		114
57	MOSELLE	1	-	13	-	4	-	18	36	-	-	1	1	38		56
67	RHIN (BAS)	1	1	-	-	1	-	3	9	-	-	1	-	10		13
68	RHIN (HAUT)	1	-	-	-	-	-	1	1	-	-	-	-	1		2
70	SAONE (HAUTE)	1	1	1	1	1	-	5	33	-	-	-	2	35		40
71	SAONE-ET-LOIRE							0	1	-	-	-	-	1		1
73	SAVOIE	1	1	-	-	1	-	3	51	1	-	-	-	52		55
74	SAVOIE (HAUTE)	-	2	-	-	-	-	2	33	4	-	-	-	37		39
88	VOSGES	2	2	1	1	18	-	24	71	1	-	-	3	75		99
89	YONNE	-	-	-	-	4	-	4	7	-	-	-	-	7		11
90	TERR.DE BELFORT							0	1	-	-	-	-	1		1
TOTAL		25	22	72	10	75	2	206	785	11	0	5	16	817	0	1023
PER CENT		2.4	2.2	7.0	1.0	7.3	0.2	20.1	76.7	1.1	0.0	0.5	1.6	79.9	0.0	100.0

HUN HUNGARY — RABIES CASES — 1. 1.82 - 31. 3.82

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							0	3	-	-	-	-	3		3
02	BARANYA	-	1	-	-	-	-	1	36	-	-	-	-	36		37
03	BACS-KISKUN	-	2	3	-	-	-	5	16	-	-	-	-	16		21
04	BEKES	1	-	1	-	-	-	2	10	-	-	-	-	10		12
05	BORSOD-ABAU-ZEMPLEN	1	-	-	-	-	-	1	52	-	-	-	1	53		54
06	CSONGRAD							0	5	-	-	-	-	5		5
07	FEJER	1	1	-	-	-	-	2	55	-	-	-	-	55		57
08	GYOER-SOPRON	1	-	-	-	-	-	1	18	-	-	-	-	18		19
09	HAJDU-BIHAR	-	6	-	-	-	-	6	28	-	-	-	-	28		34
10	HEVES	-	1	-	-	-	-	1	3	-	-	-	-	3		4
11	KOMAROM							0	14	-	-	-	-	14		14
12	NOGRAD							0	14	-	-	1	-	15		15
13	PEST	1	1	3	-	-	-	5	44	-	-	-	-	44		49
14	SOMOGY	2	1	-	-	1	-	4	36	2	-	1	-	39		43
15	SZABOLCS-SZATMAR	1	4	-	-	-	-	5	32	-	-	-	-	32		37
16	SZOLNOK							0	16	-	-	-	-	16		16
17	TOLNA	1	-	-	-	-	-	1	30	1	-	-	-	31		32
18	VAS							0	59	-	-	-	-	59		59
19	VESZPREM	2	-	1	-	-	-	3	64	-	-	-	-	64		67
20	ZALA							0	23	-	-	-	-	23		23
TOTAL		11	17	8	0	1	0	37	558	3	0	2	1	564	0	601
PER CENT		1.8	2.8	1.3	0.0	0.2	0.0	6.2	92.8	0.5	0.0	0.3	0.2	93.8	0.0	100.0

RABIES CASES 1. 1.82 - 31. 3.82

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		
ITA ITALY															
23 SONDRIO							0	22	2	-	-	-	24		24
25 BRESCIA							0	8	2	-	-	-	10		10
32 BELLUNO							0	3	1	-	-	-	4		4
33 UDINE							0	30	5	1	1	-	37		37
34 TRIESTE E GORIZIA							0	13	-	-	-	-	13		13
39 BOLZANO							0	22	2	-	-	-	24		24
TOTAL	0	0	0	0	0	0	0	98	12	1	1	0	112	0	112
PER CENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5	10.7	0.9	0.9	0.0	100.0	0.0	100.0
YUG YUGOSLAVIA															
III SR HRVATSKA	1	1	-	-	-	-	2	258	-	-	-	-	258		260
V SR SLOVENIJA	1	3	2	-	-	-	6	263	-	-	-	14	277		283
VI SR SRBIJA							0	6	-	-	-	-	6		6
VI1 SAP VOJVODINA	3	4	-	-	-	1	8	115	-	-	-	1	116		124
VI2 SAP KOSOVO	-	-	1	-	-	-	1						0		1
TOTAL	5	8	3	0	0	1	17	642	0	0	0	15	657	0	674
PER CENT	0.7	1.2	0.4	0.0	0.0	0.1	2.5	95.3	0.0	0.0	0.0	2.2	97.5	0.0	100.0

LUX LUXEMBOURG — RABIES CASES — 1. 1.82 - 31. 3.82

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		
0205	HOBSCHEID							0	3	-	-	-	-	3		3
0207	KOERICH							0	1	-	-	-	-	1		1
0209	MAMER							0	1	-	-	-	-	1		1
0309	PETANGE							0	2	-	-	-	-	2		2
0404	NIEDERANVEN							0	2	-	-	-	-	2		2
0509	MERSCH							0	1	-	-	-	-	1		1
0601	ASSELBORN							0	1	-	-	-	-	1		1
0602	BOEVANGE (CLERVAUX)	-	1	-	-	-	-	1						0		1
0607	HOSINGEN	-	-	-	-	2	-	2	2	-	-	-	-	2		4
0608	MUNSHAUSEN							0	1	-	-	-	-	1		1
0610	WEISWAMPACH							0	1	-	-	-	-	1		1
0701	BASTENDORF							0	1	-	-	-	-	1		1
0702	BETTENDORF							0	1	-	-	-	-	1		1
0707	ETTELBRUCK							0	1	-	-	-	-	1		1
0712	REISDORF							0	3	-	-	-	-	3		3
0713	SCHIEREN							0	1	-	-	-	-	1		1
0905	HARLANGE							0	1	-	-	-	-	1		1
0912	WILWERWILTZ							0	1	-	-	-	-	1		1
1001	FOUHREN							0	-	-	-	1	-	1		1
1102	BECH	-	-	1	-	-	-	1						0		1
1103	BERDORF							0	1	-	-	-	-	1		1
1104	CONSDORF	-	-	1	-	-	-	1						0		1
1105	ECHTERNACH							0	1	-	-	-	-	1		1
1108	WALDBILLIG							0	1	-	-	-	-	1		1
TOTAL		0	1	2	0	2	0	5	27	0	0	1	0	28	0	33
PER CENT		0.0	3.0	6.1	0.0	6.1	0.0	15.2	81.8	0.0	0.0	3.0	0.0	84.8	0.0	100.0

POL POLAND — RABIES CASES — 1. 1.82 – 31. 3.82

LOCATION CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOG	CAT	CATTLE	HORSE	SHEEP GOAT	OTHERS	TOTAL	FOX	BADGER	OTHER MUSTEL	DEER	OTHERS	TOTAL		
01	WARSZAWA	–	1	–	1	–	–	2	3	–	–	–	–	3		5
05	BIALYSTOK	–	–	1	–	–	–	1	1	–	–	–	–	1		2
09	BYDGOSZCZ							0	2	–	–	–	–	2		2
17	ELBLAG	–	1	–	–	–	–	1	5	2	–	1	2	10		11
21	GORZOW							0	4	–	–	–	–	4		4
25	KALISZ	–	1	–	–	–	–	1						0		1
27	KATOWICE	–	1	–	–	–	–	1	3	–	–	–	–	3		4
29	KIELCE							0	2	–	–	–	–	2		2
33	KOSZALIN	–	1	–	–	–	–	1	11	–	1	19	2	33		34
39	LEGNICA							0	4	–	–	–	–	4		4
41	LESZNO							0	2	–	–	–	–	2		2
51	OLSZTYN	–	1	1	–	–	–	2	4	–	–	5	–	9		11
61	PLOCK							0	1	–	–	–	–	1		1
63	POZNAN							0	2	–	–	–	–	2		2
77	SLUPSK							0	1	–	–	1	–	2		2
79	SUWALKI							0	1	–	–	–	1	2		2
81	SZCZECIN	–	1	–	–	–	–	1	7	–	–	3	1	11		12
87	TORUN	–	1	–	–	–	–	1						0		1
89	WALBRZYCH							0	27	–	–	–	–	27		27
93	WROCLAW	1	1	–	–	–	–	2	6	–	–	–	–	6		8
95	ZAMOSC							0	–	–	–	1	–	1		1
97	ZIELONA GORA							0	4	–	–	1	–	5		5
TOTAL		1	9	2	1	0	0	13	90	2	1	31	6	130	0	143
PER CENT		0.7	6.3	1.4	0.7	0.0	0.0	9.1	62.9	1.4	0.7	21.7	4.2	90.9	0.0	100.0

RUM R U M A N I A — R A B I E S C A S E S — 1. 1.82 - 31. 3.82

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	ALBA	1	-	-	-	-	-	1	5	-	-	-	-	5		6
02	ARAD	-	-	-	1	-	-	1						0		1
04	BACAU							0	-	1	-	-	-	1		1
06	BISTRITA-NASAUD	1	-	-	-	-	-	1	1	-	-	-	-	1		2
11	CARAS-SEVERIN							0	3	-	-	-	-	3		3
12	CALARASI	-	-	-	-	1	-	1						0		1
13	CLUJ	-	-	-	-	1	-	1						0		1
19	GIURGIU							0	1	-	-	-	-	1		1
22	HUNEDOARA							0	3	-	-	-	-	3		3
23	IALOMITA	-	-	-	-	3	-	3						0		3
24	IASI							0	1	-	-	-	-	1		1
31	SATU-MARE	-	1	-	-	-	-	1						0		1
32	SALAJ							0	4	-	-	-	-	4		4
38	VASLUI							0	3	-	-	-	-	3		3
40	VRANCEA	-	-	-	1	-	-	1						0		1
TOTAL		2	1	0	2	5	0	10	21	1	0	0	0	22	0	32
PER CENT		6.2	3.1	0.0	6.2	15.6	0.0	31.2	65.6	3.1	0.0	0.0	0.0	68.7	0.0	100.0

SWI SWITZERLAND AND LIECHTENSTEIN — R A B I E S C A S E S — 1. 1.82 - 31. 3.82

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		
01	AARGAU	-	1	-	-	-	-	1	7	1	1	-	-	9		10
02	APPENZELL A.RH.							0	3	-	-	-	-	3		3
03	APPENZELL I.RH.							0	1	-	-	-	-	1		1
04	BASEL-STADT	-	-	-	-	1	-	1	1	-	-	-	-	1		2
05	BASEL-LAND	-	-	-	-	1	-	1	1	-	-	-	-	1		2
06	BERN	-	1	-	-	-	-	1	18	1	1	1	-	21		22
07	FRIBOURG	3	9	2	-	1	-	15	18	2	3	3	-	26		41
08	GENEVE							0	1	-	-	-	-	1		1
10	GRAUBUENDEN	-	3	-	-	-	-	3	35	-	-	3	1	39		42
11	LUZERN	-	1	-	-	-	-	1	1	-	-	-	-	1		2
12	NEUCHATEL	-	1	1	-	-	-	2	2	-	-	-	-	2		4
15	SCHAFFHAUSEN							0	6	-	1	-	-	7		7
16	SCHWYZ							0	17	-	1	-	-	18		18
17	SOLOTHURN	-	1	-	-	-	-	1	7	-	-	2	-	9		10
18	ST.GALLEN	-	2	-	-	1	-	3	8	-	-	1	-	9		12
20	THURGAU	-	4	-	-	1	-	5	20	-	1	2	-	23		28
21	URI							0	4	1	-	1	-	6		6
22	VAUD	1	9	2	-	7	-	19	99	5	8	7	1	120		139
25	ZUERICH	-	1	-	-	-	-	1	21	-	1	3	-	25		26
26	JURA	-	2	1	-	-	-	3	3	-	-	-	-	3		6
TOTAL		4	35	6	0	12	0	57	273	10	17	23	2	325	0	382
PER CENT		1.0	9.2	1.6	0.0	3.1	0.0	14.9	71.5	2.6	4.5	6.0	0.5	85.1	0.0	100.0

TUR TURKEY — RABIES CASES — 1. 1.82 - 31. 3.82

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		
001	ADANA	4	1	1	-	-	-	6						0		6
003	AFYON	2	-	-	-	1	-	3						0		3
004	AGRI	-	-	1	-	-	-	1						0		1
005	AMASYA	11	-	5	-	-	-	16						0		16
006	ANKARA	20	4	14	1	2	-	41						0		41
007	ANTALYA	-	1	-	-	-	-	1						0		1
009	AYDIN	13	-	10	-	-	-	23						0		23
010	BALIKESIR	4	1	3	-	3	-	11						0		11
011	BILECIK	4	-	-	-	-	-	4						0		4
012	BINGOEL	2	-	1	-	-	-	3						0		3
014	BOLU	10	-	2	-	-	-	12	-	-	-	-	1	1		13
015	BURDUR	1	-	1	-	-	-	2						0		2
016	BURSA	28	1	4	1	1	2	37	-	-	-	-	4	4		41
017	CANAKKALE	6	-	1	-	1	-	8						0		8
018	CANKIRI	8	-	1	-	-	-	9	-	-	-	-	1	1		10
019	CORUM	12	-	1	-	-	2	15	-	-	-	-	1	1		16
020	DENIZLI	8	2	-	1	2	-	13						0		13
021	DIYARBAKIR	5	-	7	-	2	-	14						0		14
022	EDIRNE	1	1	1	-	-	-	3						0		3
023	ELAZIG	-	-	1	-	-	-	1						0		1
025	ERZURUM	3	-	3	-	-	-	6						0		6
026	ESKISEHIR	-	-	-	1	-	-	1						0		1
027	GAZIANTEP	6	-	-	-	-	-	6						0		6
028	GIRESUN	5	1	9	-	1	-	16	-	-	-	-	1	1		17
029	GUEMUESHANE							0	-	-	-	-	1	1		1
032	ISPARTA	2	1	-	1	-	-	4						0		4
033	ICEL	5	-	1	-	-	-	6						0		6
034	ISTANBUL	20	2	1	-	-	-	23	-	-	-	-	1	1		24
035	IZMIR	31	1	5	-	1	-	38	-	-	-	-	1	1		39

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		
036	KARS	4	-	1	-	-	-	5						0		5
037	KASTAMONU	4	1	-	-	-	-	5						0		5
038	KAYSERI	3	-	1	-	-	-	4						0		4
039	KIRKLARELI	4	-	-	-	-	-	4						0		4
040	KIRSEHIR	-	-	1	-	-	-	1						0		1
041	KOCAELI	5	-	1	-	1	-	7						0		7
042	KONYA	6	1	1	-	-	-	8						0		8
045	MANISA	11	1	1	-	1	-	14						0		14
047	MARDIN	1	-	1	-	1	-	3						0		3
048	MUGLA	1	-	-	-	-	-	1						0		1
049	MUS	1	-	1	-	-	-	2						0		2
050	NEVSEHIR	1	-	-	-	-	-	1						0		1
051	NIGDE	1	1	1	-	-	-	3						0		3
052	ORDU	7	-	5	-	4	-	16						0		16
054	SAKARYA	10	1	7	-	-	-	18						0		18
055	SAMSUN	24	1	8	-	-	-	33	-	-	-	-	1	1		34
057	SINOP	1	-	4	-	-	-	5	-	-	-	-	2	2		7
058	SIVAS	5	-	1	-	-	-	6						0		6
059	TEKIRDAG	1	-	-	-	-	-	1						0		1
060	TOKAT	2	-	1	-	-	-	3						0		3
061	TRABZON	5	-	-	-	-	-	5						0		5
063	URFA	3	-	-	-	-	-	3						0		3
064	USAK	1	-	2	1	1	1	6						0		6
066	YOZGAT	5	-	-	-	1	-	6						0		6
067	ZONGULDAK	5	-	1	-	-	-	6						0		6
TOTAL		322	22	111	6	23	5	489	0	0	0	0	14	14	0	503
PER CENT		64.0	4.4	22.1	1.2	4.6	1.0	97.2	0.0	0.0	0.0	0.0	2.8	2.8	0.0	100.0

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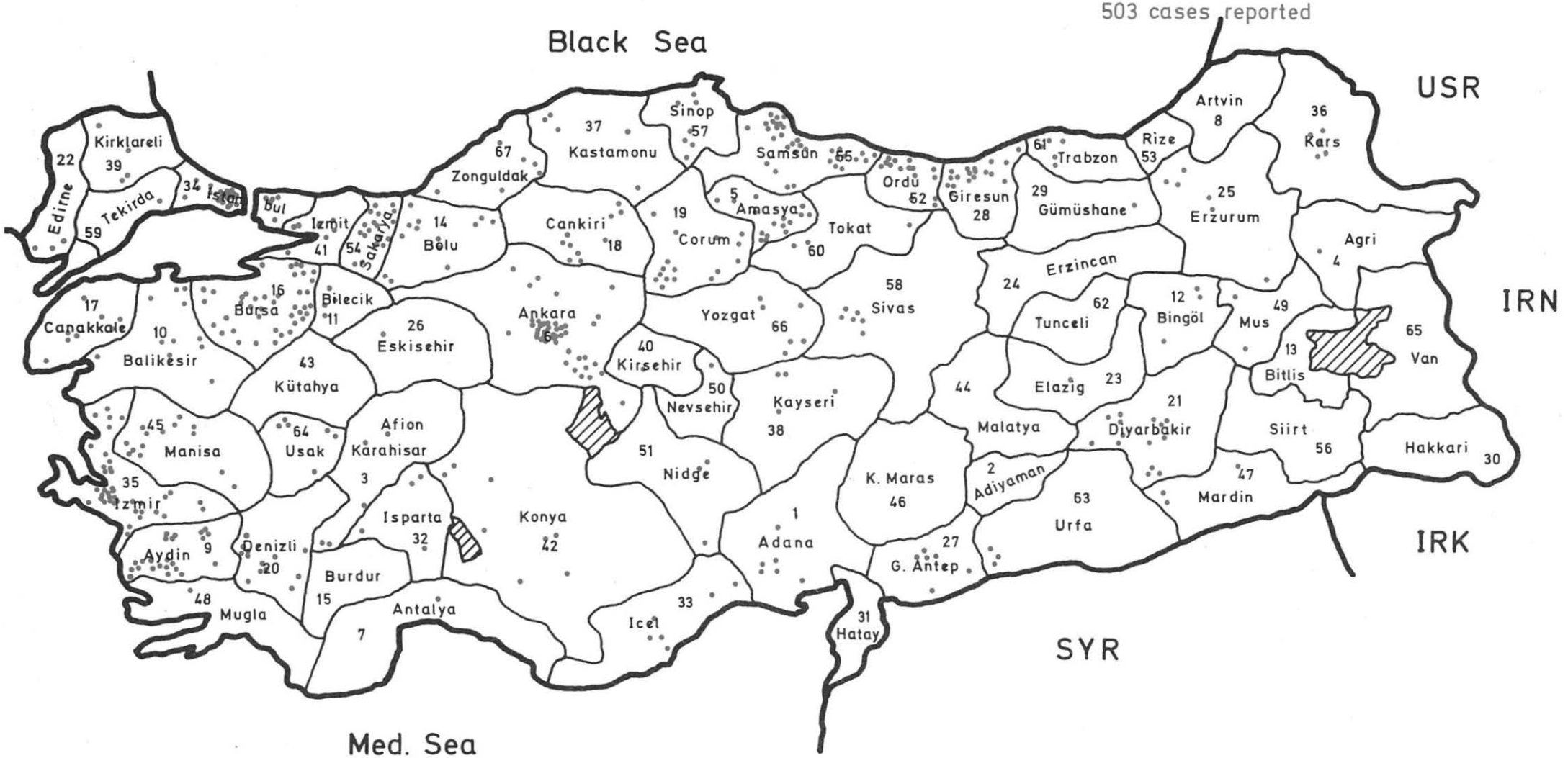
WHO
Tuebi

T°

VHO Coll. Centre
uebingen / DEU

Rabies Cases Turkey
1st Quarter 1982
503 cases reported



WHO Coll. Centre
Tuebingen / DEU

Rabies Cases Europe

1st Quarter 1982

5640 cases reported

NOR
(0)

FIN
(rabies free)

SWE
(rabies free)

DEN
(1)

IRE
(rabies free)

GBR
(rabies free)

NET
(rabies free)

(1738)

DEU

DDR
(no data)

POL
(143)

BEL
(135)

CZE
(no data)

FRA
(1023)

AUT
(261)

HUN
(601)

SWI
(382)

RUM
(32)

ITA
(112)

YUG
(674)

BUL
(rabies free)

POR
(rabies free)

SPA
(1)
(in North Africa)

ALB
(no data)

TUR
(503)

GRE
(1)

0 50 100 km