RABIES BULLETIN EUROPE - Vol. 2/Nr. 3/1978

C O N T E N T S

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1. INTRODUCTION

1.1. Contents of the BULLETIN

This issue concerns the European rabies situation during the 2nd quarter of 1978 which is described in general and for individual countries under 2. and 2.1. - 2.24. The respective case data are tabulated under 4.1 through 4.4.

No data were available from RUM and YUG.

Supplementing case data from the 1st quarter of 1978 are listed under 4.4 for the Czechoslovakian Soc.Rep. (CZE) (page 17).

The following countries remained rabies-free: Finland, Norway, Portugal, Sweden and United Kingdom.
Rabies was absent from Bulgaria, Greece, Netherlands, and Spain during the reporting period.

Under "Miscellaneous" we have introduced an abstract from a publication of T.J. Wiktor and H. Koprowski (The Wistar Institute, Philadelphia, USA) on the detection of antigenic variants of rabies virus by monoclonal antibodies (3.1.).

Another abstract is added from an unpublished report by G.L. Humphrey, E.V. Bayer and D.G.Constantine (VPH, California State Dep. of Health) on the probable risk of dogs vaccinated against rabies by live virus vaccines (3.2.)

The issue is concluded by a topic which one may call the 'Oral Concept' of fox population control measures (3.3.).

Two maps in the Annex show the geographical distribution of rabies in European countries during the 2nd quarter of 1978.

1.2. Reporting of data

Rabies data from collaborating countries are listed in the BULLETIN in Tables which contain columns for 'other domestic' and 'other wildlife' animals in addition to the specified species. Table 2 tries to specify the types of animal species involved, based on available information.

As seen from Table 2 (page 13), a total of 55 domestic and wild animals (1.5% of the European cases) are listed as "others". However, not all cases from the reporting countries can be identified. For reasons of completness we therefore strongly suggest that, in future, all animals listed among 'others' be specified individually by species name on the bottom or the back of the respective reporting charts.

2. RABIES SITUATION IN EUROPE, 2nd QUARTER 1978

The situation in individual European countries is shown and summarized in Table 1 on page 12. The highest incidence rate (per cent total) of the European cases was observed in AUT (31%) followed by DEU (20.2%) and TUR (11.2%). The 3 countries together account for 62.4% of the total rabies cases. Incidences rates of less than 10% were seen in FRA (7.8%), DDR

(6.1%), SWI (5.5%), POL (5.3%), HUN (4.6%) CZE (4.4%) and ITA (2.2%), the remaining countries (BEL, DEN, LUX) ranging below 1%. Reversely, the rabies density (number of cases per 100 km^2 of infected area) was highest in AUT, ITA, DEN and LUX.

As compared to the 1st quarter of 1978, the total number of cases in Europe decreased by 23.5%. The decrease was highest in HUN (minus 73%) followed by POL (minus 41%), BEL (minus 40%), DDR, DEU (each minus 32%), CZE, LUX (each minus 27%), FRA (minus 25%), and SWI (minus 23%). No changes were observed in AUT and ITA. Increasing frequencies were noted in DEN and TUR (+ 31%).

Compared to the 2nd quarter of 1977, the total number of rabies cases remained unchanged (not regarding TUR for which comparative figures are not available). Increasing frequences were noted in countries in which rabies had made its reappearance, such as DEN, ITA and LUX, but were also noted in AUT (+ 67%) and CZE (+ 22%), where rabies is still expanding into hitherto free areas. The situation during the 2nd quarters of 77/78 remaind more or less unchanged in BEL, HUN and SWI. Decreasing incidences were noted in DDR (minus 38%), DEU (minus 28%), POL (minus 22%) and FRA (minus 19%) thus underlining the observation made already during the 1st quarter of 1978, that rabies is definitely decreasing in some parts of Central Europe. This is certainly a consequence of the heavy epidemics observed during the past years which have doubtlessly caused considerable mortality rates among the fox population.

Individual country reports are as follows:

2.1. Rabies in Austria (AUT) (case data on page 14)

The progress of rabies appears unchanged. During the reporting period, the main foci of the eastward moving frontwave were noted in Steiermark and Kärnten, mainly in the Bezirke of Murau, Judenburg and St. Veit. Newly infected areas were Kirchdorf/Oberösterreich, Knittelfeld/Steiermark and Völkermarkt/Kärnten near the Yougeslavian border.

In parts of the areas, behind the front, the rabies density has considerably decreased as for instance in the Salzburger Land, where 48 cases were reported in 2/78 as compared to 281 cases in 2/77.

2.2. Rabies in Belgium (BEL) (case data on page 15)

The relatively low rabies density remained unchanged, the same provinces being infected as before.

2.3. Rabies in Bulgaria (BUL)

No cases were observed during the reporting period.

2.4. Rabies in Czechoslovakia (CZE) (case data on pages 16 + 17)
by M. Capka

During the second quarter of 1978, rabies was diagnosed in a total of 162 cases (30 cases in the Slovak Socialist Republic). From the domestic animals, 9 dogs (6) and 10 cats (5) were affected. The findings of rabies infection in 140 foxes (18), 1 badger, 1 marten (1) and 1 roe deer point to

the prevalence of occurrence of the silvatic form of rabies. From the point of view of territorial distribution, most cases of rabies occur in the mountaineous regions bordering on the German Democratic Republic, German Federal Republic and, recently, Austria. Most cases of rabies in Slovakia have occurred in the central region.

2.5. Rabies in Denmark (DEN) (case data on page 15)
by S. Møllgaard

Twenty-four cases of rabies, all in foxes, were diagnosed during the period April-June, 1978. Since rabies reappeared in Denmark in September 1977 a total of 44 cases, 43 foxes and 1 marten, have occurred. The disease has since it reappeared moved about 50 km northward from the German-Danish border.

Gassing of fox burrows initiated in January 1978 stopped in the beginning of June. Within the combat area consisting of the administrative unit "Sønderjyllands amtskommune" and an area of the administrative unit "Ribe amtskommune" situated south of the river named Kongeaen, at a cost of approximately 2.5 mill DKR (US $ 0.4 mill), about 3600 fox burrows have been treated with hydrocyanic acid and 30000 dogs vaccinated against rabies.

Two or three gassing crews operated within each jurisdiction in close co-operation with a police officer, who had supervisory duties associated with the gassing programme. All crew members hold a permit, issued by the Ministry of Agriculture, to handle and use hydrocyanic acid.

Each gassing crew consisting of at least two persons, carried ampoules of amyl nitrite to be used as antidotes in case of poisoning accidents.

2.6. Rabies in Germany, Democratic Republic (DDR) (case data on page 18)

The decrease in rabies incidences observed already during the 1st quarter of 1978 has continued during the reporting period. Compared to the 2nd quarter of 1977 (360 cases) only 225 cases (65% in foxes) were observed.

When comparing the 1st half year of 1978 to that of 1977 a decrease by 40.6% of the total cases (933 to 554 cases) is noted, mainly involving foxes, dogs and small mustelides.

Human rabies was not reported, the last case occurred in 1968.

2.7. Rabies in Germany, Federal Republic (DEU) (case data on page 19)

The downward trend continued during the reporting period. Compared to the 2nd quarter of 1977, the drop from 1034 to 743 cases equals 28.1%, however, did not quite reach the value observed during the 1st quarter of this year (minus 40%). The decrease was highest in domestic animals (minus 37.9%) esp. among dogs and cattle.

Areas with markedly decreasing rabies incidences are esp. those of north and northwest Germany. Nordrhein-Westfalen showed the lowest rabies density with 0.7 cases/1000 km^2 compared to 8.4 cases in Baden-Wuerttemberg which, during this quarter recorded 40.7% of the total rabies cases of DEU on its territory. The highest rabies density was registered there in the

district of Freiburg with 18.7 cases/1000 km^2. From here the rabies epidemic presently seems to be extending again in eastern direction towards Lake Konstanz.

Of the total cases registered during the reporting period, 72 cases (9.7%) occurred in domestic animals including 24 cats (3.2%) and 17 dogs (2.3%). 671 cases (90.3%) occurred in wild animals, including 569 foxes (76.6%), 51 mustelides (6.9%) and 42 deer (5.6%).

2.8. Finland (FIN)

The country continued to be rabies-free.

2.9. Rabies in France (FRA) (case data on page 20)

During the 2nd quarter of 1978 the southern front of the rabies epidemic in France has reached the Department of Savoie threatening Haut-Savoie at the same time. This fast moving front almost has lost its connection with the epidemic in the north-eastern territorries where the majority of cases occurred, namely in the Department of Rhin-Bas, Moselle, Meurthe et Moselle, Somme, Ardennes/Meuse, Aisne/Marne.

Domestic animal rabies (54 cases) accounted for 18.7% including 15 sheep and goats (5.2%) 13 dogs (4.5%), 12 cattle (4.2%) and 10 cats (3.5%). Foxes (227 cases) accounted for 78.5% of the total cases (289).

Compared to the 2nd quarter of 1977, rabies decreased by 19%, esp. in cats and cattle, and slightly in foxes.

For control measures, esp. among foxes a new strategy called the "oral concept", has been developed (see also Miscellaneous 3.3) which, if successfully adapted in France should be encouraged for wider use.

2.10. Rabies in Greece (GRE)

No rabies cases were registered during the reporting period in Greece.

2.11. United Kingdom (GBR)

The country remained rabies-free.

2.12. Rabies in Hungary (HUN) (case data on page 21)

During the reporting period a total of 169 cases were registered, 158 of which (= 93.5%) occured in foxes. This is a considerable drop in incidences as compared to the 1st quarter of this year, when 628 cases were reported (decrease by 73.1%). The reasons for the sudden in- and decreases are not known. The most striking example is the Komitat of Baranya, where 45 cases were recorded during the period of January through March but only 1 case of a fox during the reporting period.

Compared to the 2nd quarter of 1977 no major changes occurred except that the involvement of domestic animals dropped from 20.5% to 5.9% during this quarter.

2.13. Rabies in Italy (ITA) (case data on page 22)

During the 2nd quarter of 1978, a total of 82 cases were recorded, all occuring in wildlife (foxes 78.1%, badgers 15.8% and deer 6.1%).
The seasonal decrease in wildlife rabies is reflected by the monthly figures: 39 cases in April, 26 in May and 17 in June.
47 cases (= 57.3% total) occurred in 5 neighbouring municipalities (Brunico, Marebbe, Valdaora, Anterselva, and Valle di Casies), whereas the remaining cases came from 11 other municipalities, two of which (S.Martino, Sesto) became newly invaded.

2.14. Rabies in Luxembourg (LUX) (case data on page 15)
by A. Schiltges

During the reporting period 16 new cases of rabies were recorded (15 in foxes, 1 in cattle).

Most of all incidences occured in the centre of the grand duchy, mainly in the wooded areas surrounding the township of Luxembourg. In the quarter to come, further outbreaks of rabies are expected, presumably in foxes.

2.15. Netherlands (NET)

No rabies was recorded during the reporting period. The last case occured in July 1977.

2.16. Norway (NOR)

The country remained rabies-free.

2.17. Rabies in Poland (POL) (case data on pages 24 + 25)

Of the 197 recorded cases, 133 (67.5%) occurred in foxes and 23 (11.7%) in cats. The 12 cases listed among "other wildlife" specify as follows: 1 wild boar, 2 squirrels, and 9 (!) racoon dogs. The latter species (Nyctereutes procynoides) is known to dwell in Eastern Europe. Its role in rabies is rather unknown. Therefore, it would be most interesting to gather more data on the involvement of this animal species in the present epidemic, also from other countries harboring this species.

Compared to the 2nd quarter of 1977, there is a slight decrease in total cases by 21.8%, mainly due to the reduced number of rabies cases observed in dogs and cats.

2.18. Portugal (POR)

The country remained rabies-free.

2.19. Rabies in Rumania (RUM)

No data obtained for the reporting period.

2.20. Rabies in Spain (SPA)

No rabies cases were recorded during the 2nd quarter of 1978.

2.21. Sweden (SWE)

The country continued to remain rabies-free.

2.22. Rabies in Switzerland (SWI) (case data on page 23)
by A. Wandeler

The number of rabies cases in Switzerland from April to June is slightly lower than in the preceding quarter of 1978. Notwithstanding the disease has gained access to large new areas of the Alpine region of the cantons Berne, Fribourg, and Vaud. Other animals listed as rabid include 1 donkey and 2 chamois.
The number of people bitten by proven rabid cats has decreased to 7, one person was bitten by a rabid fox.

2.23. Rabies in Turkey (TUR) (case data on pages 26 + 27)

In TUR, the leading animal species in rabies is the dog being involved at a rate of 60.5% during the reporting period. Wild animals accounted for 2.4% only. "Other" animals specify as follows:

domestic: 8 donkeys
wild: 1 wolf, 1 jackal, 1 squirrel, 6 mice.

There is 1 human rabies case being reported from the Province of Kütahya in western Turkey. Information concerning circumstances of exposure, etc. are not available.

2.24. Rabies Yugoslavia (YUG)

No data obtained during the reporting period.

3. MISCELLANEOUS

3.1. Detection of antigenic variants of rabies virus by monoclonal antibodies

Purification of rabies virus substructures led to the production of group- and serotype specific antisera (Schneider, L.G. et al., J. Virol., 11, 748-755, 1973). By using these sera, group- and serotyp memberships can be established. All work so far carried out has failed, however, to determine antigenic variants, to establish strain specificities, or to differentiate vaccine strains from one another or from street viruses. The antisera produced, inevitably showed a broad spectrum of specificities directed against a wide range of antigenic determinants.
The recent work of T.J.Wiktor and H.Koprowski (Monoclonal antibodies against rabies virus produced by somatic cell hybridization: Detection of antigenic variants. Proc.Natl.Acad.Sci. USA, Vol. 75, No. 8, August 1978) indicates that new pathways are open for the refined investigation of various problems in rabies.

Instead of using a multivalent antibody mixture as present in animal antisera, the research workers employed antibodies secreted by cultured lymphocytes derived from either mass-cultured or cloned spleen cells. To establish spleen cells in cultures, the antibody producing lymphocytes are hybridized with malignant plasmacytoma cells, cloned, and kept in serial passage. These lymphocyte hybridomas proved to be a unique source for homogeneous antibodies with a specificity that in the case of influenza virus, allows to detect even minor antigenic differences among variants of the same strain of virus.

It was shown that hybridomas of mouse myeloma cells and lymphocytes from mice immunized with inactivated ERA virus vaccine produced antibodies against rabies virus. Such antibodies were produced in 52 out of 83 hybridomas. Different hybridomas produced antibodies with different specificities. For instance, antibodies produced by one hybridoma reacted only with 3 of 7 strains of fixed viruses (ERA, SAD, Pasteur, Pitman Moore, CVS, HEP Flury, Kelev), while another hybridoma antibody reacted with 6 of 7 of these strains.
By testing the above strains against antibodies from a series of hybridomas in neutralization tests, several antigenic patterns became obvious, whereas street viruses could not be differentiated as yet with the existing repertoire of hybridoma antibodies.

Hybridoma antibodies interacting with antigenic determinants on nucleocapsids cross-reacted with all fixed and street strains tested, thus confirming the group antigen nature of the internal core antigen as previously suggested.

Finally, it was shown that virus-neutralizing hybridoma antibodies protected mice against a lethal challenge infection.

From the above cited paper we may conclude that in future, hybridoma antibodies will be extremely useful in various fields of immunology, biology and medical research.

One practical aspect, soon to be realized, will be the use of hybridoma antibodies in the diagnosis of disease, malfunction and antigens, even in instances in which such procedures are presently unknown or difficult to perform. Maybe that even one day, antibodies produced in culture will be used for therapeutic purposes.

3.2. Live virus vaccine infections in dogs

The introduction of the modified live virus (MLV) chicken embryo origin (CEO), low egg passage (LEP) Flury virus vaccine (Koproswki, H. and Black, J., J. Immunol. 64, 185-196, 1950) marked the start for a world-wide vaccination campaigne for the control of canine rabies. The vaccine is presently still in use in many countries.

The CEO-LEP vaccine has widely been shown to be a powerful tool where canine rabies is a problem. In areas where dogs do not constitute a major health problem in regard to rabies, the use of this type of live virus vaccine becomes more and more prohibitive:

- Cats, cattle, wild pet animals, health-impaired dogs and dogs under 3 months of age may contract vaccine rabies and die.

- Rabies virus antigen and histopathological lesions have been demonstrated in CNS parts corresponding with the site of inoculation following vaccination of healthy dogs with commercial CEO-LEP vaccine (Schneider, L.G., Bull.Off. int.Epiz. 67, 453-456, 1967).
- The "needle-stich" exposure of veterinarians, lab personal and dog owners during vaccination praxis requires human post-exposure treatments in many countries.

These reasons, and the fact that potent inactivated cell culture vaccines for animals are widely available now, have led the Government of the Federal Republic of Germany to completely discontinue the future use of live virus vaccines in animals (Verordnung zum Schutz gegen die Tollwut vom 11.3.1977, Bundesgesundheitsblatt 1977, Teil 1, p. 444).

A report prepared by the Vet.Publ.Hlth.Unit, Inf. Dis.Sect., California Dep. of Hlth, 2151 Berkeley Way, Berkeley, Cal. 94704, USA (Drs. G.L. Humphrey, E.V. Bayer and D.G. Constantine) -unpublished- on the probable risk of dogs vaccinated with live virus vaccine has now led the California State Government to abandon the use of MLV-CEO-LEP Flury strain of live virus vaccine.

The report reviewes 12 probable rabies vaccine virus infections in dogs in California which occurred between 1974 and 1978. Data for another 14 cases, however more questionable and therefore not included in the study, are summarized in a table of the report.

For case recognition the following criteria were used as the basis for defining cases of rabies vaccine virus infection in dogs:

- General criteria:
  - MLV rabies vaccine recently inoculated into the animal.
  - Signs of disease appear 7 to 30 days after vaccination.
  - Ascending paralysis develops and may be fatal (first signs usually seen in inoculated limb, where that site is used).
- Laboratory criteria:
  - If dog dies or is euthanatized:
  - Fluorescent rabies antibody test (FRA) of dog's brain is positive.
  - Negri body negative (Dog brain or brains of first-passage mice).
  - Antibody titer for rabies in cerebrospinal fluid (CSF).
  - Antibody titer for rabies (eventually high) in blood serum.
  - Salivary glands of the dog are negative for rabies virus.
  - If viable, the virus has a short incubation period (4-6 days) in inoculated mice.
  - If viable, the virus grows to high titer on initial inoculation into eggs.
  - If dog survives:
  - Antibody titer for rabies in CSF[x)].
  - High antibody titer for rabies in blood serum[x)].

x) Rabies antibody in CSF is accepted as evidence of current or past infection of the central nervous system. A high serum rabies antibody titer, as defined herein, would be in excess of 1:800, which is the apparent upper limit of the normal canine response to CEO-LEP rabies vaccines.

The findings on the 12 reviewed cases were as follows:

- Frequency. Two cases of probable rabies vaccine virus infection were diagnosed in 1974, two in 1975, one in 1976, five in 1977, and two so far in 1978, for a total of 12 cases. The recent increase in reports is coincident with and probably related to an increased awareness of the problem among veterinarians and public health workers.

- Outcome. Five of the 12 dogs survived, at least one of these with sequelae, 6 were considered terminal and euthanatized, and one was permitted to die. The latter had a concurrent distemper infection.

- Vaccines. All of the 12 cases were vaccinated with CEO-LEP-Flury strain rabies vaccines.

- Other Potential Sources of Infection. Sources of infection other than vaccine virus were considered in 3 cases but were ruled out when 2 of the dogs survived, and the virus from the 3rd showed the characteristics of CEO-LEP-vaccine virus in laboratory tests.

- Incubation Periods. The dogs showed disease signs starting 7 to 19 days after being vaccinated. Most incubation periods were 7 to 11 days.

- Morbidity Period. Although the dog with the dual rabies-distemper infections died 5 days after the appearance of symptoms, 6 others were sacrificed after 5, 5, 6, 7, 8, and 9 days, respectively. Near complete recovery was reported in the other dogs after 17 days, 1 month, 2 months, and 2 1/2 months, although one dog suffered permanent paralysis of the inoculated limb.

- Symptoms. Posterior paralysis typically develops, first appearing in the inoculated limb, often progressing to partial or complete quadriplegia. Signs of distress are seen, of course. Encephalitis is often diagnosed. One dog had intermittent mild convulsions. Another, which suffered attacks of delerium, could not fully retract its tongue. Failure to eat and dring, quadriplegia, and encephalitic or distress signs usually stimulated euthanasia. Recovery has followed lesser signs and good supportive treatment. Posterior paralysis is the first sign to appear in dogs that have been experimentally inoculated with CEO, LEP virus by the intracranial route, so posterior paralysis is not dependent on inoculation into the rear quarters. However, initial signs in the limb of inoculation may be specific in cases where that site is used; early signs at the site of viral inoculation are frequently reported in street rabies infections. The incubation period, or interval between vaccination and the appearance of signs, is consistent with infection rather than local nerve injury.

- Breed, Age, and Sex. Breeds have ranged widely from Chihuahua to Labrador. Ages have ranged from 4 1/2 months to 4 years. Seven males and 5 females are in the series.

- Route of Inoculation. Seven were inoculated in a rear limb, two in the lumbar muscles, and 3 in either one of these sites. There is evidence that vaccine rabies may be more likely to occur if the vaccine is inoculated close to the spine.

- Corticosteroid Administration. In 8 instances corticosteroids were reported to have been used, but only after the appearance of disease signs, not before. Corticosteroids have been reported to depress antibody production and precipitate the disease in exposed animals.

- Other Simultaneous Vaccinations, Infections, or Stress. Three dogs were given additional vaccines, i.e., live distemper and hepatitis vaccines and killed leptospirosis vaccine, when they were vaccinated with the rabies vaccine, and two of these dogs were also neutered at the time. As mentioned, another dog had a concurrent distemper infection. Multiple vaccines may add stress and dilute the antibody-producing response to a given vaccine, and distemper virus actively depresses this response, a role possibly performed by live virus distemper vaccine.

- Previous Rabies Vaccinations. One dog, (which was euthanatized) was reportedly vaccinated some 2 years earlier with an unknown rabies vaccine product. Another dog (which survived) had an identical history. Another survivor had been twice vaccinated on earlier occasions with the same CEO-LEP-vaccine it received this time, most recently 1 1/2 years previously as well as one year before.

Based on the documented cases and on the sales data of the producers of canine rabies vaccines, the case rate of canine vaccine virus infection in California was 2,3 cases per million dogs vaccinated with the CEO-LEP vaccine. This rate is 46times higher than the rate of paralytic polio reactions to trivalent oral polio vaccine (0.05 cases/million persons vaccinated).

All of the recognized vaccine-associated canine rabies cases were observed in animals vaccinated with CEO-LEP Flury vaccine only. No such infections were seen with other live virus rabies vaccines used in California. Based on the sales data one would expect to see some 5.76 cases in the latter group if cases had occurred in the same proportion as in the CEO-LEP vaccinated dogs.

(All California data were extracted from the unpublished report cited above. We want to thank the authors for permitting us to use their report for quotation).

3.3. Fox population control and the 'Oral Concept'.

Control measures aimed at the reduction of fox populations are found effective in controlling wildlife rabies when carried out appropriately as to time, place and intensity (see also 2.5.). If carried out for longer periods of time, the measure becomes less effective, mainly due to disinterest and tiredness as part of the human nature.
Here, to stimulate the appetite and to increase the efforts, an 'oral concept' as developed by the world-famous French cuisine seems to be worthwhile for recommendation. The recipe, published in "Le Messager du chasseur Haut-Savyard", Nr. 9 - June 1978 was taken and abstracted from

B.E.M.No 6, June 1978, of the French Centre National d'Etudes sur la Rage, Nancy. The recipe is named
"Les Côtelettes de renard du gard" (fox chops).

Ingredients:
6 chops of a young fox, 10 walnuts, 2 table-spoons of gruel, 1 gross table-spoon of peanut-oil, 1 small glass of brandy or cognac, 2 small glasses of cherry-liqueur, salt, pepper.

For the marinade:
30 g butter, 2 onions, 4 carrots, 0.5 l of wine-vinegar, 0.5 l of red wine, 6 juniper-berries, 6 peppercorns, 1 glove of garlic, thyme, sage.

For the gravy:
250 g of cherries, 3 small glasses of cherry-liqueur, 2 cloves, a pinch of cinnamon.

The preparation is as follows:
- Allow the chops to hang overnight in the cool (even at frost).
- Slice carrots and onions and brown them in a stewpan with 30g of butter.
- Add half a litre of red wine.
- Add thyme, sage, one mashed clove of garlic, 6 juniper-berries and 6 peppercorns.
- Put the chops into that marinade for 2 days.
- Take them off and drain well.
- Bring to boil a quantity of salted water, enough to cover the chops and about 10 walnuts.
- Put the chops into that brew and allow to boil for 15 minutes at moderate flame.
  That treatment by walnuts is necessary to remove the too strong fox-odor from the chops.
- Take the chops off and drain them well.
- Roll the chops in flour in order to dry them properly.
- Heat one table-spoon of peanut-oil in a stewpan.
- Put the chops into the hot oil and make them auburn on all sides (about 10 min.).
- Take off the chops from the flame, douse them with 1 small glass of brandy or cognac and flame off.
- Salt and pepper the chops and douse them with 2 small glasses of cherry-liqueur.
- Cover the stewpan and boil moderately for 2 hours.
- In the meantime prepare the gravy:
  250 g of cherries are mashed in cherry-liqueur (3 wine-glasses); salt and pepper; add 2 cloves and a pinch of cinnamon and simmer for 10 minutes.
- The chops are dressed on a platter with their juice.
  The gravy is served in a sauce-pan together with the chops.

B o n a p p e t i t e !

Table 1: Rabies cases by country and species during the 2nd quarter of 1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL	COUNTRIES
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL			
1	AUT	2	16	5	-	9	-	32	899	98	15	91	4	1107	-	1139	AUT
2	BEL	-	3	1	-	-	-	4	11	-	-	-	-	11		15	BEL
3	BUL	no cases	-	-	-	-	-	-	-	-	-	-	-	-		o	BUL
4	CZE	9	10	-	-	-	-	19	140	1	1	1	-	143	-	162	CZE
5	DEN	-	-	-	-	-	-	-	24	-	-	-	-	24		24	DEN
6	DDR	24	16	6	-	6	-	52	147	6	4	11	5	173	-	225	DDR
7	DEU	17	24	17	2	10	2	72	569	23	28	42	9	671	-	743	DEU
8	FRA	13	10	12	4	15	-	54	227	3	-	1	4	235	-	289	FRA
9	GRE	no cases	-	-	-	-	-	-	-	-	-	-	-	-	-	o	GRE
10	HUN	3	6	1	-	-	-	10	158	1	-	-	-	159		169	HUN
11	ITA	-	-	-	-	-	-	-	64	13	-	5	-	82	-	82	ITA
12	LUX	-	-	1	-	-	-	1	15	-	-	-	-	15	-	16	LUX
13	NET	no cases	-	-	-	-	-	-	-	-	-	-	-	-	-	o	NET
14	POL	6	23	15	-	2	-	46	133	2	2	2	12	151	-	197	POL
15	RUM	no data														-	RUM
16	SPA	no cases	-	-	-	-	-	-	-	-	-	-	-	-		o	SPA
17	SWI + LIE	1	16	4	-	12	1	34	138	14	4	12	2	170		204	SWI
18	TUR	248	10	103	3	27	8	399	-	-	1	-	9	10	1	410	TUR
19	YUG	no data														-	YUG
	Totals:	323	134	165	9	81	11	723	2525	161	55	165	45	2951	1	3675	
	per cent:	*8.8*	*3.6*	*4.5*	*0.2*	*2.2*	*0.3*	*19.7*	*68.7*	*4.4*	*1.5*	*4.5*	*1.2*	*80.3*	*0.03*		

Table 2: 'Other animal species' found rabid in Europe during the 2nd quarter of 1978

	other domestic animals		other wild animals											Total
	pig	donkey	chamois	racoon	wild boar	hare	marmot	squirrel	wolf	jackal	racoon dog	house mouse	unspecified	
AUT			1			1	1							3
DDR													5	5
DEU	2			2									7	11
FRA													4	4
POL					1			2			9			12
SWI		1	2											3
TUR		8						1	1	1		6		17
Totals	2	9	3	2	1	1	1	3	1	1	9	6	16	55

AUT

AUSTRIA: Rabies Cases 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
V1	Bludenz							0	2	-	-	-	-	2		2
V2	Bregenz							0	1	1	1	1	-	4		4
V3	Feldkirch							0	6	1	1	1	-	9		9
V4	Dornbirn							0	6	2	1	-	-	9		9
T1	Imst							0	8	-	2	-	-	10		10
T2	Innsbruck	-	3	1	-	3	-	7	94	13	2	18	1	128		135
T3	Kitzbühel	-	1	-	-	2	-	3	24	2	-	1	-	27		30
T4	Kufstein							0	2	-	-	-	-	2		2
T6	Lienz	-	-	-	-	1	-	1	17	-	-	2	-	19		20
T7	Reutte							0	11	1	-	-	-	12		12
T8	Schwaz	-	-	-	-	1	-	1	25	1	1	3	-	30		31
S1	Hallein							0	4	1	-	-	-	5		5
S2	Salzburg/U	-	1	-	-	-	-	1	9	1	-	-	-	10		11
S3	St. Johann							0	4	-	-	2	-	6		6
S4	Tamsweg							0	18	1	1	-	-	20		20
S5	Zell/See							0	6	-	-	-	-	6		6
O1	Braunau							0	12	-	-	7	-	19		19
O4	Gmunden							0	14	3	-	2	1	20		20
O6	Kirchdorf							0	6	3	-	-	-	9		9
O14	Vöcklabruck							0	2	-	-	1	-	3		3
ST6	Hartberg							0	1	-	-	-	-	1		1
ST7	Judenburg	1	1	-	-	-	-	2	85	12	-	4	-	101		103
ST8	Knittelfeld							0	3	-	1	-	-	4		4
ST11	Liezen	-	2	-	-	-	-	2	64	14	2	12	1	93		95
ST13	Murau	-	4	-	-	1	-	5	179	22	2	15	-	218		223
K1	Hermagor							0	23	2	1	4	-	30		30
K2	Klagenfurt/L							0	32	1	-	1	-	34		34
K3	St. Veit/Gl	-	3	3	-	1	-	7	158	9	-	8	1	176		183
K4	Spital/Dr.	1	-	-	-	-	-	1	19	3	-	4	-	26		27
K5	Villach	-	1	-	-	-	-	1	52	4	-	5	-	61		62
K6	Völkermarkt	-	-	1	-	-	-	1						0		1
B2	Güssing							0	5	-	-	-	-	5		5
B3	Jennersdorf							0	2	-	-	-	-	2		2
B6	Oberpullendf.							0	1	-	-	-	-	1		1
B7	Oberwart							0	4	1	-	-	-	5		5
	Total:	2	16	5	-	9	-	32	899	98	15	91	4	1107	-	1139

Rabies Cases: 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
BEL	BELGIUM															
Lg	Liège	-	1	-	-	-	-	1	4	-	-	-	-	4		5
Lux	Luxembourg	-	2	1	-	-	-	3	5	-	-	-	-	5		8
Na	Namur							o	2	-	-	-	-	2		2
	Total:	-	3	1	-	-	-	4	11	-	-	-	-	11	-	15
DEN	Denmark															
050545	Åbenrå							o	2	-	-	-	-	2		2
050503	Bov							o	3	-	-	-	-	3		3
050513	Gråsten							o	1	-	-	-	-	1		1
050515	Haderslev							o	1	-	-	-	-	1		1
050519	Lundtofte							o	4	-	-	-	-	4		4
050529	Rødekro							o	3	-	-	-	-	3		3
050539	Tinglev							o	5	-	-	-	-	5		5
050541	Tønder							o	4	-	-	-	-	4		4
050543	Vojens							o	1	-	-	-	-	1		1
	Total:							o	24	-	-	-	-	24	-	24
LUX	LUXEMBOURG:															
00 01	Luxembourg-Ville							o	2	-	-	-	-	2		2
02 02	Clemency							o	3	-	-	-	-	3		3
13 03	Canach	-	-	1	-	-	-	1						o		1
04 03	Alzingen							o	1	-	-	-	-	1		1
04 03	Fentange							o	1	-	-	-	-	1		1
04 03	Hesperange							o	2	-	-	-	-	2		2
04 06	Neuhäusgen							o	1	-	-	-	-	1		1
06 07	Rodershausen							o	1	-	-	-	-	1		1
05 01	Colmar-Berg							o	1	-	-	-	-	1		1
09 06	Tadler							o	1	-	-	-	-	1		1
03 12	Rumelange							o	1	-	-	-	-	1		1
03 03	Dudelange							o	1	-	-	-	-	1		1
	Total:	-	-	1	-	-	-	1	15	-	-	-	-	15	-	16

CZE CZECHOSLOVAK SOCIALIST REPUBLIC: R a b i e s C a s e s : 1.4. - 30.6.1978

CODE / NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
CSR:															
00 00 District of Prague							o	1	-	-	-	-	1		1
01 00 Central Bohemia							o	15	1	-	-	-	16		16
02 00 South Bohemia							o	24	-	-	-	-	24		24
03 00 West Bohemia	-	2	-	-	-	-	2	27	-	-	1	-	28		30
04 00 North Bohemia	2	1	-	-	-	-	3	40	-	-	-	-	40		43
05 00 East Bohemia	1	-	-	-	-	-	1	11	-	-	-	-	11		12
06 00 South Moravia							o						o		o
07 00 North Moravia	-	2	-	-	-	-	2	4	-	-	-	-	4		6
Total CSR:	*3*	*5*	-	-	-	-	*8*	*122*	*1*	-	*1*	-	*124*		*132*
SSR:															
10 00 Distr.of Bratislava							o						o		o
11 00 West Slovakia	1	1	-	-	-	-	2	5	-	1	-	-	6		8
12 00 Central Slovakia	5	3	-	-	-	-	8	8	-	-	-	-	8		16
13 00 East Slovakia	-	1	-	-	-	-	1	5	-	-	-	-	5		6
Total SSR:	*6*	*5*	-	-	-	-	*11*	*18*	-	*1*	-	-	*19*		*30*
T o t a l CSSR:	9	10	-	-	-	-	19	140	1	1	1	-	143	-	162

CZE

CZECHOSLOVAK SOCIALIST REPUBLIC: Rabies Cases: 1.1. - 31.3.1978

CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
CSR:															
00 00 District of Prague							0	1	-	-	-	-	1		1
01 00 Central Bohemia							0	21	-	-	-	-	21		21
02 00 South Bohemia	1	1	-	-	-	-	2	38	-	-	-	-	38		40
03 00 West Bohemia	-	2	-	-	-	-	2	39	-	-	-	-	39		41
04 00 North Bohemia	4	2	-	-	-	-	6	47	1	-	3	-	51		57
05 00 East Bohemia	-	-	-	-	-	1	1	12	1	-	1	-	14		15
06 00 South Moravia							0						0		0
07 00 North Moravia	-	1	-	-	-	-	1	3	-	-	-	-	3		4
Total CSR:	*5*	*6*	-	-	-	*1*	*12*	*161*	*2*	-	*4*	-	*167*		*179*
SSR:															
10 00 Distr. of Bratislava							0						0		0
11 00 West Slovakia	1	1	-	-	-	-	2	5	1	-	1	3	10		12
12 00 Central Slovakia	1	2	-	-	-	-	3	19	-	-	-	1	20		23
13 00 East Slovakia	1	-	1	-	-	-	2	6	-	-	-	-	6		8
Total SSR:	*3*	*3*	*1*	-	-	-	*7*	*30*	*1*	-	*1*	*4*	*36*		*43*
Total CSSR:	8	9	1	-	-	1	19	191	3	-	5	4	203	-	222

Rabies Cases: 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
DDR	GERMAN DEMOCRATIC REPUBLIC															
I	Rostock	6	2	-	-	-	-	8	22	-	-	1	1	24		32
II	Schwerin	2	2	-	-	-	-	4	7	-	-	-	-	7		11
III	Neubrandenburg							o	3	1	-	2	-	6		6
IV	Potsdam	1	-	1	-	-	-	2	10	-	-	1	-	11		13
V	Frankfurt	-	-	1	-	-	-	1	2	-	-	-	-	2		3
VI	Cottbus	1	-	-	-	-	-	1	5	-	-	1	-	6		7
VII	Magdeburg	1	1	-	-	-	-	2	7	1	-	-	-	8		10
VIII	Halle	1	1	-	-	-	-	2	1	-	-	-	1	2		4
IX	Erfurt	1	1	-	-	-	-	2	32	-	-	-	-	32		34
X	Gera	3	2	-	-	-	-	5	18	1	2	1	-	22		27
XI	Suhl	2	2	1	-	-	-	5	4	-	-	-	2	6		11
XII	Dresden	-	1	-	-	1	-	2	16	-	2	1	1	20		22
XIII	Leipzig							o	5	-	-	3	-	8		8
XIV	Karl-Marx-Stadt	6	4	3	-	5	-	18	15	3	-	1	-	19		37
XV	Hauptstadt Berlin							o						o		o
	Total:	24	16	6	-	6	-	52	147	6	4	11	5	173	-	225

DEU

FEDERAL REPUBLIC OF GERMANY: R a b i e s C a s e s 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
010	Schleswig-Holstein	-	-	-	-	1	2	3	23	-	-	3	-	26		29
020	Hamburg							0						0		0
031	Braunschweig	1	2	4	-	-	-	7	23	1	2	5	1	32		39
032	Hannover							0	7	3	1	2	3	16		16
033	Lüneburg							0	13	-	-	2	-	15		15
034	Weser-Ems							0	2	-	-	-	-	2		2
040	Bremen							0						0		0
051	Düsseldorf							0						0		0
053	Köln	-	-	1	-	-	-	1	4	-	-	-	-	4		5
055	Münster							0						0		0
057	Detmold							0	1	-	1	-	1	3		3
059	Arnsberg	-	1	-	-	-	-	1	12	-	-	3	-	15		16
061	Darmstadt	-	3	5	-	2	-	10	33	-	-	3	-	36		46
062	Kassel	2	-	1	-	2	-	5	16	-	-	-	1	17		22
071	Koblenz	-	1	-	2	2	-	5	26	-	-	-	-	26		31
072	Trier	-	5	1	-	-	-	6	8	2	-	2	-	12		18
073	Rheinhessen-Pfalz							0	13	-	-	-	-	13		13
081	Stuttgart	2	-	1	-	-	-	3	25	3	-	3	-	31		34
082	Karlsruhe	4	2	-	-	-	-	6	26	-	3	5	-	34		40
083	Freiburg	1	5	4	-	2	-	12	144	6	7	6	-	163		175
084	Tübingen							0	44	4	1	4	-	53		53
091	Oberbayern	2	2	-	-	-	-	4	39	1	2	-	-	42		46
092	Niederbayern							0	12	1	3	-	-	16		16
093	Oberpfalz	3	2	-	-	-	-	5	33	-	6	2	1	42		47
094	Oberfranken							0	8	-	-	-	1	9		9
095	Mittelfranken							0	9	-	1	-	-	10		10
096	Unterfranken	2	1	-	-	1	-	4	22	-	1	2	1	26		30
097	Schwaben							0	24	2	-	-	-	26		26
100	Saarland							0	1	-	-	-	-	1		1
110	Berlin							0	1	-	-	-	-	1		1
	T o t a l :	17	24	17	2	10	2	72	569	23	28	42	9	671	-	743

FRA

F R A N C E : Rabies Cases 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
01	Ain							o	21	1	-	-	-	22		22
02	Aisne	1	1	-	1	-	-	3	5	-	-	-	-	5		8
08	Ardennes	2	-	4	1	1	-	8	8	1	-	-	1	10		18
25	Doubs	-	1	-	-	-	-	1	2	-	-	-	-	2		3
39	Jura							o	5	-	-	-	-	5		5
51	Marne	-	2	-	-	1	-	3	15	-	-	-	-	15		18
52	Marne-Haute	-	1	-	-	-	-	1	15	-	-	-	1	16		17
54	Meurthe-et-Moselle	2	-	-	-	-	-	2	24	-	-	-	-	24		26
55	Meuse	1	2	6	-	3	-	12	6	-	-	-	1	7		19
57	Moselle	5	-	1	1	2	-	9	30	-	-	-	-	30		39
58	Nièvre							o	1	-	-	-	-	1		1
60	Oise							o	5	-	-	-	-	5		5
67	Rhin-Bas	-	1	1	-	-	-	2	36	-	-	-	-	36		38
68	Rhin-Haut	1	-	-	-	-	-	1	15	-	-	-	-	15		16
70	Saône-Haute	-	1	-	-	1	-	2	2	-	-	-	-	2		4
73	Savoie							o	6	-	-	-	-	6		6
77	Seine-et-Marne	1	-	-	-	-	-	1						o		1
80	Somme							o	3	-	-	-	-	3		3
88	Vosges	-	1	-	1	7	-	9	27	1	-	1	1	30		39
89	Yonne							o	1	-	-	-	-	1		1
	T o t a l :	13	10	12	4	15	-	54	227	3	-	1	4	235	-	289

HUN HUNGARY : Rabies Cases 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
01	Budapest							0						0		0
02	Baranya							0	1	-	-	-	-	1		1
03	Bács-Kiskun	1	-	-	-	-	-	1	7	-	-	-	-	7		8
04	Békés	1	1	-	-	-	-	2	9	-	-	-	-	9		11
05	Borsod	1	-	-	-	-	-	1	9	1	-	-	-	10		11
06	Csongrad							0	5	-	-	-	-	5		5
07	Fejér							0	17	-	-	-	-	17		17
08	Györ							0	6	-	-	-	-	6		6
09	Hajdu							0	5	-	-	-	-	5		5
10	Heves	-	1	-	-	-	-	1	6	-	-	-	-	6		7
11	Komárom							0	12	-	-	-	-	12		12
12	Nógrád	-	1	-	-	-	-	1	8	-	-	-	-	8		9
13	Pest	-	1	1	-	-	-	2	19	-	-	-	-	19		21
14	Somogy							0	3	-	-	-	-	3		3
15	Szabolcs							0	6	-	-	-	-	6		6
16	Szolnok	-	1	-	-	-	-	1	8	-	-	-	-	8		9
17	Tolna							0	7	-	-	-	-	7		7
18	Vas	-	1	-	-	-	-	1	14	-	-	-	-	14		15
19	Veszprém							0	13	-	-	-	-	13		13
20	Zala							0	3	-	-	-	-	3		3
	Total :	3	6	1	-	-	-	10	158	1	-	-	-	159	-	169

Rabies Cases: 1.4. - 30.6.1978

CODE / NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
ITA ITALY															
039030 Val Aurino							0	2	-	-	-	-	2		2
Mühlwald							0	9	1	-	-	-	10		10
S.Vigilio Marebbe							0	6	-	-	1	-	7		7
Anterselva							0	10	-	-	1	-	11		11
Braies							0	1	2	-	-	-	3		3
S.Martino Badia							0	1	-	-	-	-	1		1
Sesto							0	3	2	-	2	-	7		7
Olang							0	15	3	-	-	-	18		18
039031 Brunico							0	3	1	-	-	-	4		4
039032 Campo Tures							0	2	-	-	1	-	3		3
039034 Dobbiaco							0	1	1	-	-	-	2		2
039035 Monguelfo							0	1	1	-	-	-	2		2
Val Casies							0	6	1	-	-	-	7		7
039039 Villabassa							0	-	1	-	-	-	1		1
032041 Auronzo							0	3	-	-	-	-	3		3
032043 Cortina							0	1	-	-	-	-	1		1
Total:							0	64	13	-	5	-	82	-	82

Rabies Cases: 1.4. - 30.6.1978

CODE / NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
SWI SWITZERLAND															
1 Aargau							o	1	1	-	1	-	3		3
2 Appenzell AR							o	1	-	-	-	-	1		1
3 Appenzell AI							o	1	-	-	-	-	1		1
5 Basel-Land							o	1	-	-	-	-	1		1
6 Bern	-	2	2	-	-	-	4	27	5	-	1	-	33		37
7 Freiburg	1	4	1	-	5	-	11	14	2	3	3	1	23		34
8 Genf							o	4	1	-	1	-	6		6
10 Graubünden							o	19	-	1	2	-	22		22
11 Luzern							o						o		o
12 Neuenburg	-	1	-	-	-	-	1	4	-	-	-	-	4		5
15 Schaffhausen							o	3	-	-	-	-	3		3
17 Solothurn	-	1	-	-	-	-	1	3	-	-	-	-	3		4
18 St. Gallen	-	1	1	-	4	-	6	40	1	-	3	1	45		51
20 Thurgau							o	7	-	-	-	-	7		7
22 Waadt	-	6	-	-	2	-	8	3	1	-	-	-	4		12
25 Zürich	-	-	-	-	1	1	2	7	3	-	1	-	11		13
Total:	1	15	4	-	12	1	33	135	14	4	12	2	167	-	200
LIE LIECHTENSTEIN	-	1	-	-	-	-	1	3	-	-	-	-	3	-	4

POL

POLAND: Rabies Cases: 1.4. - 30.6.1978

CODE	NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
		DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
01	Warszawa							o	2	-	-	-	-	2		2
03	Biala Podlaska	-	1	-	-	-	-	1	4	1	-	-	-	5		6
05	Bialystok	1	1	-	-	-	-	2	1	-	-	-	3	4		6
07	Bielsko-Biala							o	3	-	-	-	-	3		3
09	Bydgoszcz	-	1	-	-	-	-	1	3	-	-	-	-	3		4
11	Chelm	-	-	1	-	-	-	1	-	-	-	-	1	1		2
13	Ciechanów	-	1	-	-	-	-	1	4	-	-	-	-	4		5
15	Czestochowa							o	1	-	-	-	-	1		1
17	Elblag							o	2	-	1	-	2	5		5
19	Gdańsk							o	1	-	-	-	-	1		1
21	Gorzów Wlkp							o	3	-	-	-	-	3		3
23	Jelenia Góra	-	2	-	-	-	-	2	8	-	-	-	-	8		10
25	Kalisz	-	1	-	-	-	-	1	4	-	-	-	-	4		5
27	Katowice	-	1	3	-	-	-	4	1	-	-	-	-	1		5
29	Kielce							o						o		o
31	Konin							o	2	-	-	-	-	2		2
33	Koszalin	-	2	-	-	2	-	4	13	-	-	-	1	14		18
35	Kraków							o						o		o
37	Krosno	-	1	-	-	-	-	1	1	-	-	-	-	1		2
39	Legnica							o	1	-	1	-	-	2		2
41	Leszno							o						o		o
43	Lublin	-	1	-	-	-	-	1	1	-	-	-	-	1		2
45	Lomza							o	2	-	-	-	-	2		2
47	Lódź							o						o		o
49	Nowy Sacz	-	1	-	-	-	-	1	3	-	-	-	-	3		4
51	Olsztyn	-	1	1	-	-	-	2	5	-	-	-	2	7		9
53	Opole							o	3	-	-	-	-	3		3
55	Ostroleka	-	2	-	-	-	-	2	4	-	-	-	1	5		7
57	Pila							o	3	-	-	-	-	3		3
59	Piotrków Tryb							o						o		o
61	Plock							o	2	-	-	-	-	2		2
63	Poznań	-	1	-	-	-	-	1	2	-	-	-	1	3		4
65	Przemyśl	1	-	-	-	-	-	1						o		1

CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
POL POLAND cont'd															
67 Radom							0	1	-	-	-	-	1		1
69 Rzeszów							0						0		0
71 Siedlce	-	1	1	-	-	-	2	6	1	-	-	-	7		9
73 Sieradz							0						0		0
75 Skierniewice							0						0		0
77 Slupsk							0	8	-	-	-	-	8		8
79 Suwalki	1	1	-	-	-	-	2	2	-	-	-	-	2		4
81 Szczecin	1	1	1	-	-	-	3	10	-	-	2	1	13		16
83 Tarnobrzeg							0						0		0
85 Tarnów							0						0		0
87 Torún	2	-	-	-	-	-	2	2	-	-	-	-	2		4
89 Walbrzych							0	14	-	-	-	-	14		14
91 Wloclawek	-	1	-	-	-	-	1	1	-	-	-	-	1		2
93 Wroclaw	-	1	-	-	-	-	1	4	-	-	-	-	4		5
95 Zamość	-	1	-	-	-	-	1						0		1
97 Zielona Góra	-	-	8	-	-	-	8	6	-	-	-	-	6		14
Total :	6	23	15	-	2	-	46	133	2	2	2	12	151	-	197

TUR

T U R K E Y : Rabies Cases 1.4. - 30.6.1978

CODE NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
01 Adana	6	-	2	-	-	-	8	-	-	1	-	-	1		9
03 Afyon	2	-	1	-	-	-	3						0		3
05 Amasya	-	-	2	-	1	-	3						0		3
06 Ankara	14	-	5	-	-	1	20						0		20
07 Antalya	2	-	-	1	-	-	3						0		3
09 Aydin	7	1	-	-	-	-	8						0		8
10 Balikesir	1	-	1	-	-	1	3						0		3
11 Bilecik	5	-	1	-	-	-	6						0		6
12 Bingöl	-	-	1	-	-	-	1						0		1
14 Bolu	-	-	5	-	7	-	12						0		12
15 Burdur	3	-	-	-	-	-	3						0		3
16 Bursa	5	1	1	-	-	-	7						0		7
18 Cankiri	2	-	1	-	-	-	3	-	-	-	-	1	1		4
19 Corum	8	-	5	-	1	-	14						0		14
20 Denizli	2	-	2	-	-	-	4						0		4
21 Diyarbakir	3	-	-	-	-	-	3						0		3
22 Edirne	-	-	1	-	-	-	1						0		1
23 Elâzig	6	-	-	-	-	-	6						0		6
24 Erzincan	1	-	-	-	-	1	2						0		2
25 Erzurum	2	1	-	-	-	-	3						0		3
26 Eskisehir	6	-	-	-	-	-	6						0		6
28 Giresun	7	-	1	-	2	-	10						0		10
31 Hatay	-	-	1	-	-	-	1						0		1
32 Isparta	1	-	12	1	-	-	14						0		14
33 Icel	2	-	-	-	-	-	2						0		2
34 Istanbul	10	-	2	-	5	-	17	-	-	-	-	1	1		18
35 Izmir	37	4	3	1	2	1	48	-	-	-	-	3	3		51
36 Kars	1	-	-	-	-	-	1						0		1
37 Kastamonu	6	-	4	-	-	-	10						0		10
38 Kayseri	3	-	2	-	-	-	5						0		5

CODE / NAME	DOMESTIC ANIMALS							WILD ANIMALS						HUMAN CASES	TOTAL
	DOGS	CATS	CATTLE	HORSES	SHEEP GOATS	OTHERS	TOTAL	FOXES	BADGERS	OTHER MUSTELIDES	DEER	OTHERS	TOTAL		
TUR TURKEY cont'd															
39 Kirklareli	5	-	-	-	-	-	5						0		5
41 Kocaeli	6	1	2	-	-	-	9						0		9
42 Konya	18	1	6	-	1	-	26						0		26
43 Kütahya	9	-	2	-	1	-	12						0	1	13
45 Manisa	4	-	3	-	2	-	9						0		9
47 Mardin	1	-	-	-	-	-	1						0		1
48 Mugla	2	-	3	-	-	-	5						0		5
51 Nigde	-	-	1	-	-	-	1	-	-	-	-	1	1		2
52 Ordu	10	1	2	-	-	-	13						0		13
53 Rize	-	-	1	-	-	-	1						0		1
54 Sakarya	9	-	11	-	2	-	22						0		22
55 Samsun	28	-	12	-	2	-	42	-	-	-	-	3	3		45
57 Sinop	5	-	4	-	-	-	9						0		9
58 Sivas	3	-	-	-	-	-	3						0		3
60 Tokat	-	-	2	-	-	-	2						0		2
63 Urfa	1	-	-	-	-	-	1						0		1
64 Usak	2	-	-	-	-	-	2						0		2
66 Yozgat	3	-	1	-	1	4	9						0		9
Total :	248	10	103	3	27	8	399	-	-	1	-	9	10	1	410

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WHO Coll. Centre
Tuebingen / DEU

Rabies Cases Turkey
2nd Quarter 1978
410 cases reported

WHO Coll. Centre
Tuebingen / DEU

Rabies Cases Europe
3rd Quarter 1978

3738 cases reported

NOR
(rabies free)

FIN
(rabies free)

SWE
(rabies free)

DEN
(69)

IRE
(rabies free)

GBR
(rabies free)

NET
(0)

(916)

DEU

BEL
(13)

(16)

DDR
(361)

POL
(251)

CZE
(172)

FRA
(211)

AUT
(868)

HUN
(192)

(242)
SWI

RUM
(no data)

ITA
(39)

YUG
(no data)

BUL
(0)

POR
(rabies free)

SPA
(0)

ALB
(no data)

TUR
(387)

GRE
(1)

0 50 100 km