

SWITZERLAND

M.-P. Ryser-Degiorgis & P. Dollinger

Federal Veterinary Office
Schwarzenburgstrasse 161
CH-3097 Liebefeld / Berne

SOURCES OF INFORMATION

An update of the initial report (1994) was performed in June 2000 following discussions among Drs M.-P. RYSER-DEGIORGIS (formerly at the Centre for Fish and Wildlife Health, University of Berne) and P. DOLLINGER (Federal Veterinary Office, Berne), P. BOUJON (Institute Galli-Valerio, Lausanne), U. BREITENMOSER, U. MÜLLER (Swiss Rabies Center, University of Berne) and J.-M. HATT (Clinic for Zoo Animals and Exotic Pets, University of Zürich).

GENERAL SUMMARY

There is no centralized national program for wild animal diseases surveillance in Switzerland. Numerous institutions perform diagnostic work and/or research on wildlife. However, near-national surveillance is provided by two veterinary institutions: The *Centre for Fish and Wildlife Health* (Institute of Animal Pathology) at the Veterinary Faculty in Berne and the *Institute Galli-Valerio* in Lausanne. Each provides diagnostic services for wild animal species. The *Centre for Fish and Wildlife Health* accepts specimens from anywhere in the country. The *Institute Galli-Valerio* serves primarily the Canton of Vaud but also accepts specimens from elsewhere. Research on wild animal diseases is not restricted to these two institutions but they are the only two institutions engaged in general routine surveillance for wildlife diseases. Diagnostic records, histological slides and blocks of tissue dating to the 1950's and 60's are maintained at the *Institute Galli-Valerio* and constitute a significant historical archive. Three other institutions are involved in routine diagnostic of infectious diseases in free-ranging wildlife: (1) The *Swiss Rabies Centre*, the first to undertake oral vaccination of foxes as a mean to control the disease, is located in the same building as the *Centre for Fish and Wildlife Health* and there is close cooperation among the personnel of these two groups. (2) The *Institute of Virology and Immunoprophylaxis* (Mittelhäusern, Berne) is the official laboratory for diagnostic of the OIE list A diseases. (3) The *Clinic for Zoo Animals and Exotic Pets* and the *Institute of Pathology* of the University of Zurich receive increasing numbers of wild mammals and birds for clinical and pathological examination.

WILDLIFE DISEASE SURVEILLANCE: INFRASTRUCTURE AND FUNCTION

-Detection

Wildlife management personnel (game and fish wardens, in particular) and the general public, including hunters and fishermen, are the field personnel primarily involved in detection. The *Centre for Fish and Wildlife Health* receives approximately 200 free-ranging wild mammals/birds and 200-300 wild fish each year; an additional 100 or so wild mammals are examined as part of specific research projects. Until 1997, the *Institute Galli-Valerio* received approximately 1000-1500 wild animal specimens yearly, of which several hundreds were foxes submitted as part of the rabies program.

Up to then, specimens were systematically collected and stored in cold rooms distributed around the canton of Vaud. They were picked up by the Institute each week. However, since March 1997, this was stopped due to budgetary restrictions. Since then, only selected cases suspected to be of interest are submitted for necropsy and the number of cases has dropped to 200-350/year. A very small number of wild fish are examined in Lausanne. The number of foxes and other mammals sent to the *Swiss Rabies Center* dropped from 1200-2000 (1991-1995) to 500 and less since 1997.

There is no cost for the submitter of wild mammals or birds, and the government pays for examinations of wild fish submitted through a government agent. Transportation of specimens to the institutes is the responsibility of the submitter.

-Diagnosis

Both institutions have well-equipped diagnostic laboratories and pathologists with formal post-graduate education in veterinary diagnostic pathology. Furthermore, there is intense collaboration with several specialized laboratories (e.g. Institute of Parasitology, Institute of Bacteriology). The *Centre for Fish and Wildlife Health* has a faculty position dedicated to wild animal diagnosis and research, and the *Institute Galli-Valerio* has a long tradition of interest and activity in wild animal disease diagnosis in addition to its mandate as a diagnostic laboratory for domestic animals.

-Information Management

Centre for Fish and Wildlife Health: Diagnostic data are now organized on a database computer program. Standard diagnostic information, species and geographic location (by commune and canton) are coded and retained. Paper copies of the diagnostic reports are kept for more than 10 years. Only a short history/anamnesis is typed onto the final report, but the documents that accompanied the specimen to the laboratory are kept with the final report in the files of the Institute. Reports are now available for the previous 15 years for fish and the previous 10 years for other wildlife. Data about wild animals and fish are summarized in an annual report each year. Data and reports are written/recorded in German with translation into French as necessary.

Institute Galli-Valerio: Computerization was only begun in 1994 but records on paper have been retained for the past 30 years. Histological slides and blocks have been retained for 30 to 40 years. Data and reports are in French with translation into German if necessary. The historical file of reports is organized by species and by year and can be searched in this way. The number and species of wild animal specimens received is noted in the Institute's Annual Report, but diagnoses are not summarized. Wildlife diagnoses have been summarized and published periodically in the past, the last being in 1985.

-Use of Information

Diagnostic reports for wild animal specimens are sent to appropriate wildlife management personnel as well as to the submitter of the specimen. Annual reports from the *Centre for Fish and Wildlife Health* are sent to the federal wildlife and veterinary offices. Thus, information about wildlife diseases is available to wildlife managers.

-Financial Base

The *Centre for Fish and Wildlife Health* is a part of the Veterinary Faculty of the University of Berne (Institute of Veterinary Pathology). As such, it is supported by a combination of cantonal and federal funds. The *Institute Galli-Valerio* is the veterinary diagnostic laboratory for the Canton of Vaud and is supported by the canton, with an

additional small endowment from the original sponsor of the laboratory, the well-known parasitologist Professor Galli-Valerio.

COMMENTS

The activities of the *Centre for Fish and Wildlife Health* and the *Institute Galli-Valerio* together with that of the *Swiss Rabies Centre* constitute quite a complete system of wildlife disease surveillance. The major current weakness is the absence of a national database upon which national epidemiological analyses could be based. Only informations about diseases of which the report is compulsory are systematically collected by the *Federal Veterinary Office*.

PRIMARY CONTACTS

- Zentrum für Fish und Wildtiermedizin (Centre for Fish and Wildlife Health)
Institut für Tierpathologie
Universität Bern
Länggass – Strasse 122
CH - 3012 Bern
Tel: (+ 41) 31 631 24 43; Fax: (+41) 31 631 26 11
Attn: Dr. N. ROBERT (Diagnostic) ; Dr. M. JANOVSKY (Research)

- Institut Galli-Valerio
Rue César-Roux 37
CH - 1014 Lausanne
Tel: (+41) 21 316 39 00; Fax: (+41) 21 316 39 27
Attn: Dr. P. BOUJON

SECONDARY CONTACTS

- Schweizerische Tollwutzentrale (Swiss Rabies Centre)
Institut für Veterinär-Virologie
Universität Bern
Länggass-Strasse 122
CH - 3012 Bern
Tel: (+41) 31 631 23 78 ; Fax: (+41) 31 63125 34
Attn: Dr. R. ZANONI

- Bundesamt für Veterinärwesen (Federal Veterinary Office)
Schwarzenburgstrasse 161
CH - 3097 Liebfeld/Bern
Tel: (+41) 31 325 85 03 ; Fax: (+41) 31 323 56 86
Attn: Dr. P. DOLLINGER ; Dr. M. SCHMITT

- Sektion Wildtiere (Game Department)
Bundesamt für Umwelt, Wald und Landschaft (Federal Office for Environment,
CH - 3003 Bern Forest and Landscape)
Tel: (+41) 31 324 78 32
Attn: Dr. H.-J. BLANKENHORN