Schweizerische Eidgenossenschaft
Confédération suisse
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Federal Department of Home Affairs FDHA
Federal Food Safety and Veterinary Office FSVO

Federal Department of the Environment, Transport, Energy and Communications DETEC
Federal Office for the Environment FOEN

Information on animal experimentation

Approval of animal experiments related to investigations, surveys and research projects involving wild animal populations 4.03

A Objectives and scope of application

The handling of wild animals is subject in part to the Animal Protection Act of 16 December 2005 (TSchG; SR 455), whose enforcement is devolved to the cantonal veterinary services, and in part (depending on the animal species and issue involved) to the Hunting Act of 20 June 1986 (JSG; SR 922.0), the Federal Act on the Protection of Nature and Cultural Heritage of 1 July 1966 (NHG; SR 451) or the Federal Act on Fisheries of 21 June 1991 (BGF, SR 923.0), for whose implementation various cantonal offices or the federal government are responsible.

The purpose of this information is to clarify which proposals that involve wild animal populations require an approval for animal experiments pursuant to the Animal Protection Act, and when such an approval can be waived for other legally supported management tasks related to wildlife projects. Vertebrates, cephalopods and Reptantia (a suborder of decapod crustaceans) are subject to the Animal Protection Act.

This information is designed for the cantonal and federal authorities and committees responsible for the enforcement of legislation regarding animal welfare, hunting, fisheries and nature conservation, as well as for all institutions and persons who conduct investigations on free-living wild animals or capture them.

B Legal basis for animal experiments

The Animal Protection Act is intended to protect the dignity and welfare of animals. No one may unjustifiably cause pain, suffering or harm to an animal, make it fearful or otherwise violate its dignity.

Animal experimentation is defined in Article 3 (c) of the Animal Protection Act. An animal experiment includes any measure involving the use of live animals with the aim of (1) testing a scientific hypothesis or (2) determining the effect of a particular measure on an animal. Furthermore, animal experiments are involved if (4) cells, organs or body fluids of live animals are obtained or tested (except where this is done in relation to agricultural production) for diagnostic purposes or for evidence of the health status of animal populations, and (6) if animals are used in teaching or training.

An ‘animal experiment’ is broadly defined, so that in case of doubt, a measure is subject to monitoring via the requirement for approval. Accordingly, the FSVO, in its ongoing practice, interprets Article 3 (c) (2) of the Animal Protection Act such that not only measures affecting the animal itself but also measures affecting its environment are covered. The cantonal veterinary services have never objected

to this practice. This is because environmental measures can also cause pain, suffering or injury to an animal, make it fearful or otherwise violate its dignity.

Every animal experiment is subject to approval, even if the animals are not strained (degree of severity 0). Any person who wishes to carry out animal experiments must apply to the cantonal authority for a corresponding approval (Art.18 Animal Protection Act). The provisions concerning the conditions and procedure for the approval of animal experiments are laid down in Chapter 5, Art. 139-152 of the Animal Welfare Ordinance (TSchV). The approval is issued by the cantonal authority if the conditions for granting the approval are met pursuant to Article 140 of the TSchV. If a project is conducted in several cantons, the application need only be submitted to the canton that is primarily involved, which carries out a supra-cantonal approval procedure. Further provisions in the Animal Welfare Ordinance concern the qualifications of the persons performing the experiments (Art. 132 TSchV) and the study directors (Article 134 TSchV) as well as the conduct of experiments (Article 135 TSchV).

C Management measures in wild animal populations

Proposals with free-living wild animals that do not satisfy the definition of animal experiments in Article 3 (c) of the Animal Protection Act are not subject to an animal protection approval procedure. This means that measures for the protection and management of wild animals do not require an animal experimentation approval. However, they are subject to various regulations and approval procedures specified by the Hunting Act (JSG), the Fisheries Act (BGF) or the Protection of Nature and Cultural Heritage Act (NHG), depending on the species.

Other measures regarding free-living wild animals with the primary purpose of ensuring the enforcement of the above-mentioned Acts in relation to species conservation and/or wildlife management (e.g monitoring, population surveys) may be covered by the definition of animal experimentation. The purviews of the Acts overlap, and whether an Act is applied by itself or in conjunction with another Act must be determined on a case-by-case basis, taking into account the purpose of the Act. Since animal welfare aspects in the area of management measures and success monitoring can be covered by the enforcement mechanisms of the species conservation authorities, no approval for animal experiments needs to be applied for in this case.

Measures regarding free-living wild animals whose primary purpose is not in the execution of the JSG, BGF or NHG (e.g. testing a new method, developing basic biological knowledge or investigating the cause of a disease) require an animal experimentation approval and possibly a species conservation approval.

In unclear cases, allocation of the procedure must be clarified by involving the participating authorities, i.e. on the one hand the competent authority according to the JSG, BGF or NHG and on the other hand the veterinary service. In each case, it is the primary purpose of the proposal that is decisive, not whether, for example, the data collected in measures for enforcement of species protection legislation could also be included later in a scientific publication.

D Examples of enforcement measures (without animal experimentation approval) and projects with other primary purposes (with animal experimentation approval)

The **listing of examples** of established management tasks for implementation of the JSG, BGF and NHG as well as projects with other purposes is **not an exhaustive list**, but serves as a guide for the allocation of a project to the appropriate approval procedure.

D.1 Measures that do not require an animal experimentation approval (Tables 1-3)

Table 1: Management tasks according to the Hunting Act

1.1	Surveillance of an animal of particular interest: - Surveillance of a problem bear identified with a telemetry collar for this purpose.
1.2	Capture and transport / relocation of endangered or problematic animals: - Rescuing fawns: gamekeeper or hunter captures a deserted fawn with gloves or tufts of grass in a hay meadow where it is in danger of injury by a mowing machine, and puts it in a safe place nearby. If possible, the fawn is earmarked for monitoring; - Relocation of problematic mute swans on lakes.
1.3	Observation and counting of wild animals: - Observation of otters without direct action on the animals
1.4	Health monitoring of populations by taking samples from animals that were killed for other purposes: - Study of the distribution of West Nile virus in wild birds in Switzerland, using organ samples from pigeons and corvids killed for the purpose of population regulation; - Taking samples from foxes killed by hunters for the scientific study of the distribution of zoonoses in the fox population; - Combined study of cormorants killed by hunters, a) with regard to the fish species and number of fish in the stomach (diet analysis) to estimate predation pressure and b) to estimate the prevalence of bird flu.
1.5	Investigating the use of space by wild animal populations: - Red deer in Eastern Switzerland: in order to coordinate and improve intercantonal planning of hunting and to reduce forest damage by wildlife, animals are captured and immobilised with tranquiliser guns; attachment of a visible marker and a GPS/VHS transmitter; - Monitoring of deer in Switzerland on behalf of the Federal Office of the Environment: attachment of ear tags to newborn fawns by hunters; without chemical immobilisation.
1.6	Review of conservation measures for wild animal populations: - Relocation of ibex to reduce inbreeding: In order to track the success of relocations and the mixing of genetic groups, blood samples will be taken later from some fawns and juveniles for genetic analysis; - Relocation of red deer from the Bern-Mittelland to the Solothurn Jura, because the motorway here prevents the red deer from spreading naturally into the Jura; installation of telemetry transmitters to track spatial behaviour, distribution and development of the deer population;

	- Conservation and networking measures for weasels: Survey of current status after implementation of networking measures (assessment of success) to counteract the decline of stoats and least weasels in various cantons in the context of the Swiss-wide WIN programme. Indirect evidence with tracking tunnels and ink pads.
1.7	Surveillance of bird populations: - Assessment of measures for habitat improvement: Monitoring of the warbler population over several years to document habitat recovery; - Monitoring of bird migration on bird migration routes in Switzerland according to the specifications of the Ornithological Institute (active passage, migratory birds in resting and wintering areas according to the specifications of the Ornithological Institute); - Monitoring of demographic parameters of breeding bird species at ringing stations (Constant Effort Sites / MoDem stations) according to specifications of the Ornithological Institute; - Monitoring the demography of breeding bird species in Switzerland (population, reproduction and survival: nest monitoring, capture and marking of young and adult birds) according to the specifications of the Ornithological Institute.

Table 2: Management tasks according to the Fisheries Act

2.1	Management of fish and crayfish in Swiss water bodies: - Capture (removal with electrofishing , nets, fish traps etc.) of fish and crayfish; stripping of wild fish; - Hatching and rearing in fish farms; - Release of juvenile fish and crayfish into water bodies
2.2	Removal of fish from water bodies for local protection of fish and crustaceans: - Fish removal with electrofishing in case of technical interventions in water bodies, interim holding followed by release; - e.g. emergency removal from waters that are too warm or drying up.
2.3	Translocation, stocking or reintroduction of fish and crayfish in water bodies: - Capture in the wild, introduction to target waters.
2.4	Health monitoring of populations, taking samples from animals killed for other purposes: - Pathological examination and taking swabs from fish caught during regular fishing activities (professional fishing, angling).
2.5	Evaluation of stocking measures (monitoring of success): - Whitefish stocking in a lake (dye marking of whitefish eggs in a fish farm with hatching; release of hatchlings into the lake; later catching with nets; killing the fish and monitoring the dye marking); - Trout stocking in a watercourse (trout yearlings are anaesthetised at the fish farm and marked by removing the adipose fin; transport and release into the river, and later capture with electrical stunning for monitoring); - Stocking with grayling (checking to see whether there is crossbreeding of stocking material with the natural population and if natural spawning takes place, electrical capture, removal of fin material for genetic testing, release).

2.6	Follow-up of natural spawning (monitoring of success): - Electrical capture, interim holding, counting, recording of length and weight, release; - Release of eggs from the fish farm in hatching boxes into the stream; monitoring egg development and counting of juvenile fish.
2.7	Success control, monitoring of river restoration projects: - Before and after comparison with collection of data from electrically captured and narcotised fish and crayfish; interim holding, counting, recording of length and weight, release.
2.8	Review of accessibility for fish and crayfish (success control, monitoring): - Evaluation of the ability of fish passageby a power station; with the standard method; conditions are not the same for all species and sizes of fish. Modifications should be made based on the results of the evaluation; - Success monitoring of the ability of fish to swim through upstream / downstream fish ladders: electrical capture, anaesthesia, tagging with PIT tags, release, later monitoring with PIT-tag signal reception.

Table 3: Management responsibilities according to the Nature and Cultural Heritage Protection Act

3.1	Observation and counting of wild animals: - Population monitoring of various bat species regarding swarming and winter quarters (capture with mist nets, measurement, forearm bands, fitting with transmitters for localisation). - Search for (without capture) and count larvae of the fire salamander in streams. - Observation and counting of crested newts in waters without direct action on the animals (e.g. search at night with flashlight) during a mapping project. - Construction and monitoring of artificial hiding places in order to detect reptile species that are difficult to observe (e.g. smooth snake). - Capture of amphibians or reptiles with traps or scoop nets in water bodies, in order to determine the distribution of the species in these water bodies as a basis for species conservation (mapping distribution for karch/CSCF *(Swiss Centre for Fauna Mapping)* - Info Species database, monitoring, UVP *(Environmental Impact Assessment)*, networking project according to DZV *(Swiss Ordinance on Direct Payments)*.
3.2	Species conservation programme: - Incubation in reptile incubators of grass snake eggs found in garden compost , and release into the wild at the collection sites or suitable settlement sites. - Removal of fish from amphibian spawning waters in order to enhance amphibian habitats for reproduction. - Swabs from skin or mucosa from amphibians for genetic identification of species (crested newts, water frog complex) as part of a mapping project or for the control of invasive marsh frogs.
3.3	Capture and relocation/resettlement of endangered or problem animals: - Road danger reduction for amphibians: guide systems for amphibians are set up and buckets are dug into the ground. Amphibians are collected at the fences or in buckets and brought to the other side of the road or taken directly to the spawning waters.

	- Capture and short-term holding of amphibians and reptiles in connection with relocation (mostly due to construction projects leading to loss of habitats).
3.4	Investigation of distribution and use of space by wild animal populations: - Trapping bat species that are not clearly identifiable from their acoustic signals, or acoustic identification (ultrasound analysis) to determine the habitat usage of e.g. the northern bat in habitat A. Hunting areas and situations where bats are endangered are recorded with the aim of achieving long-term security for the local population; - Updating the National Red List of Bats: the three species of the genus *Plecotus* cannot be clearly identified with visual techniques alone. They must be captured briefly, e.g. with fish nets, in order to take tissue samples (genetic identification); - Revision of the National Red List of Mammals: capture of various shrew and mouse species with live traps; removal of hairs and small tissue samples from the ear for certain species, since determining the species is only possible with genetic techniques. - Capture for species identification and detection of amphibians and reptiles as part of the fieldwork for updating the national Red Lists.
3.5.	Review of conservation measures for wild animal populations: - Efficacy review in protected areas and in the network of ecological infrastructure (e.g. monitoring biotopes of national importance) on behalf of the BAFU (FOEN) - In relation to action plans for the conservation of national priority species, it may be necessary to equip individuals with a tracking transmitter (e.g. conservation plan for the lesser horseshoe bat, whose nursery roosts must be fully protected, including the hunting habitat. The spatial behaviour of this nocturnal, flying species cannot be investigated with visual techniques alone. It is therefore necessary to capture individual animals and equip them with tracking transmitters. - Optimal definition of the conservation and care goals for an area necessitates an inventory of the amphibian species that live there. An example is the conservation plan for Moos Eschenbach LU: salamanders and newts are captured with fish traps, scoop nets or by hand and held for a short time to identify them clearly. - In order to assess the effectiveness of release into the wild in connection with species conservation programmes, artificial hiding places are provided in the area concerned (planks, plastic sheets etc.). An example is grass snake conservation: these hiding places are monitored periodically, the grass snakes found are counted and their ages are estimated on the basis of their body length. It is sometimes necessary to capture the snakes by hand and restrain them briefly in order to measure them. - The use of new tunnels for amphibians needs to be checked. The culverts are monitored and amphibians are captured and identified for this purpose.
3.6	Monitoring the health of wild animal populations: - Capture and taking samples as well as veterinary/pathology examination will be required if there is an outbreak of disease symptoms among amphibians. For example, in order to determine whether certain populations of midwife toads are infected with the chytridiomycosis caused by the *Batrachochytrium dendrobatidis* fungus, individual toads are captured and a saliva sample is taken on-site with cotton swabs.

D.2 Projects for which an animal experimentation approval is required (Tables 4-6)

Table 4: Projects covered by the Hunting Act

4.1	Studies principally concerned with the biology of wild animals: - Investigation of the causes of mortality and the behaviour of leverets or young hares, with various questions regarding the behaviour of leverets in their first weeks and their activity in different habitats, with analysis of their preferences; - Investigation of the dispersal, migration and settlement behaviour of red kites in the Fribourg Alpine foothills; - Development of the scientific basis for conservation and management of protected predatory species (brown bear, lynx, wildcat and wolf) according to federal law, including the design of a screening procedure for various diseases.
4.2	Development of new methods for wildlife biology studies: - The development of warbler populations is recorded based on observations of ringed birds over three years in order to document habitat recovery. The same study will test newly developed rings with regard to ring loss and the effects on the warblers under field conditions (second ring on the bird, etc.); - Evaluation of suitable new methods for recording and identifying small mammals with regard to the planned update of the national Red List of small mammals.
4.3	Studies related to issues of evolutionary biology: - Basic project involving research on speciation. Investigation of chromosomal variations and reproductive isolation in the wild house mouse in order to understand prezygotic mechanisms; wild mice will be captured and brought to the laboratory for karyotyping and mating as well as behavioural tests.
4.4	Studies on basic animal health issues: - Investigation of the spread of diseases in the population, capture of protected and non-protected animals for holding and investigation in the laboratory. Concrete example: genetic variation of infection with *Borrelia afzelii*.

Table 5: Projects covered by the Fisheries Act

5.1	Development of new methods for the fish management of water bodies: - Pilot study followed by further research and better understanding of biodiversity based on the genetic differences among fish populations in Swiss rivers. Development of new insights into the different populations; - Development of methods for less stressful monitoring of water body renaturation (without electrofishing).
5.2	Development of principles for structural solutions for population management: - In order to make concrete suggestions and recommendations for the construction of crayfish barriers, barriers of various types are tested (various materials, different water tests) and their efficacy is determined based on the release of marked crayfish (data derived from counting and observation); - Development of guide weirs to facilitate safe migration of fish past large power plants, with specific issues related to the behaviour of various species of fish at the weir.

5.3	Studies related to animal health: - Proliferative kidney disease (PKD) will be investigated to determine the extent to which it contributes to mortality in free-living fish and the decline of their populations. In addition to field investigations, disease dynamics will be investigated with exposure experiments on fish that are held in cages in a water body.
5.4	Studies related to environmental biology: - Effect-oriented monitoring of water bodies, investigation of the efficacy of the wastewater treatment stage, powdered activated carbon treatment (PACT), whether micro-pollutants could be reduced in this way, biomonitoring of brown trout held in wastewater.

Table 6: Projects covered by the Nature and Cultural Heritage Protection Act

6.1	Studies related to basic issues of wildlife biology: - Determination of the genetic relationship (tissue samples) and heritability of migratory behaviour in noctule bats (tagging); - Research on various aspects of energy bottlenecks, social behaviour and migration of common noctule bats and lesser noctule bats, in the catchment area of a large lake; - Study targeting the genetic structure and distribution of reptile species within a population, a neighbouring population and investigation of the contact zones of different subspecies in Switzerland (see Table 3); - In order to gain a better understanding of their biology, tadpoles are captured and taken to the laboratory, partly for breeding and investigation, partly to be equipped with transmitters and released in their habitat; their genetic background will also be determined. - Field study on the migration behaviour of house mice (e.g. capture, tagging).
6.2	Studies related to basic animal health: - Scientific investigation to determine the prevalence and potential distribution of hantaviruses (different types) in natural rodent hosts with regard to the risk of zoonosis; - Investigation of the aetiology and morphology of diseases in native amphibians, e.g. study of the current state of amphibians collected on busy roads, which are not released but killed for the purpose of investigation; - Investigation of various fungal diseases in amphibians: e.g. assessment of the course of disease in animals, such that free-living frogs are captured and infected with fungus in the laboratory.

E Offices for information and approvals

No.	Office
	Animal protection legislation
01	Federal Food Safety and Veterinary Office FSVO Animal welfare, animal experiments Schwarzenburgstr. 155, 3003 Liebefeld-Bern 058 - 463 00 85 58 info@blv.admin.ch
02	**Approvals offices for animal experiments** Cantonal veterinary offices; contact: Swiss cantonal veterinarians https://www.blv.admin.ch/blv/en/home/das-blv/organisation/veterinaerdienst-schweiz.html
	Hunting legislation
03	**Approvals office for protected mammals and birds** **Approvals office for the use of prohibited aids** Federal Office for the Environment FOEN Abteilung Arten, Ökosysteme, Landschaften Sektion Wildtiere und Walbiodiversität 3003 Bern 058 462 93 89 aoel@bafu.admin.ch
04	**Approvals offices for game mammals and birds** Cantonal Offices for Wildlife and Hunting or Hunting Inspectorate Contact: Konferenz für Wald, Wildtiere und Landschaft https://www.kwl-cfp.ch/de/jfk/organisation
05	**Coordination office for bird ringing** Swiss Ornithological Institute Beringungszentrale Seerose 1 CH-6204 Sempach Phone: 041 462 97 00
	Fisheries legislation
06	**Registration office for fish tagging** Federal Office for the Environment FOEN Abteilung Arten, Ökosysteme, Landschaften Sektion Lebensraum Gewässer 3003 Bern 058 462 93 89 aoel@bafu.admin.ch
07	**Approvals office for fishing** Cantonal fisheries administrations Contact: Konferenz für Wald, Wildtiere und Landschaft https://www.kwl-cfp.ch/de/jfk/organisation

	Nature and Cultural Heritage Protection legislation
08	Federal Office for the Environment FOEN Abteilung Arten, Ökosysteme, Landschaften Sektion Arten und Lebensräume 3003 Bern 058 462 93 89 aoel@bafu.admin.ch
09	**Approvals offices for the capture and tagging of protected animals** (amphibians, reptiles, hedgehogs, bats, etc.) Cantonal offices for nature and landscape protection. Contact: Konferenz der Beauftragten für Natur- und Landschaftsschutz (KBNL) www.kbnl.ch
10	**Coordination office for tagging of reptiles and amphibians** Coordination Office for Amphibian and Reptile Protection in Switzerland (karch) Bellevaux 51 2000 Neuchâtel 032 718 36 00
11	**Coordination office for bat tagging** For the cantons of Bern, Fribourg, Geneva, Jura, Neuchâtel, Valais, and Vaud: Centre de Coordination ouest pour l'étude et la protection des chauves-souris (CCO) Muséum d'histoire naturelle case postale 6434 1211 Genève 022 418 63 47 For other cantons: Koordinationsstelle Ost für Fledermausschutz (KOF) Winterthurerstrasse 190 8057 Zürich 044 254 26 80