# **Beaver management in Bavaria**

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### **Beavers in Bavaria**

Blattschnitt der

geodaten bayern de

50 km

- established for millions of • years
- 1867 exterminated due to • overhunting
- 1966-1982 reintroduced (permitted by the Ministery of Agriculture)
- 2013 about 4.500 territories (16.000 beavers)



# Why beaver management ?

The 2 sides of the beaver

- Beavers are strictly protected
- Beavers shape landscape, create habitat for other species, store water and retain water during smaller floodings





- Beavers work also in and on privately owned ares used by humans
- Beavers can cause problems and damages

### Rivers without space: beaver problems

- Beavers feed on crops
- Beavers fell trees
- Beavers flood areas
- Beavers digg burrows





### What do you do? Beaver management



The Bavarian beaver management

- was developed 1992 (in theory) and 1996 (in the field), based on the gap between beaver's positive effects on species and landscape diversity and problems and damages on private (and state) land
- shall solve existing problems and prevent possible future conflicts
- has the goal of co-existense of man and beaver
- although there is also "management" of beaver and their habitats:

### Beaver management is management of people

### The Bavarian beaver management

- Jurisdiction for beavers is with the county nature conservation agencies (since 2006)
- Support of authorities in consulting in the field, implementing measures and damage estimation by about 250 trained "local beaver consultants", volunteering for the county agencies (with some financial compensation)
- 2 beaver managers (working for the Bund Naturschutz in Bayern e.V., cofunded by the Bavarian State Nature Fund und European Social Fund)
- "Guidelines for beaver management" by the Bavarian Ministery for Environment (Compliation of conflicts, solutions, funding programs, damage compensation, situations for beaver removals,...) to support local authorities and beaver consultants
- The system was also adopted by other German countries

### The "pillars" of beaver management

#### Consulting people / public relations

- by beaver managers, local beaver consultants, members of the nature conservation agencies

#### Preventive measures

- runs from bying areas to protection of trees

#### Damage compensation

- since 2008, for farmers, foresters, fish hatcheries

#### Removing beavers

- Trapping, killing, shooting, removing dams

### The best solution: space for rivers



- min. 10 20 m wide areas, but mainly depending on topography
- permanent solution
- mainly for protection of creeks against pestizides, fertilizers and sediments, for development of creeks, as space for other species, for water retention and flooding protection,.... (beavers like corn fields better!)
- Service of land owners for the public (withour globalisation pressure)
- Implementation mainly middleand longterm
- different programs and fundings

### Preventive measures







#### Examples (mostly funded):

- Electric fences
- Tree protection
- Removing / lowering dams
- Beaver deceivers
- Protection of dams and dikes
- Protection of pipes







### Damage compensation fund

- since August 2008, voluntary fund of the Bavarian ministery for Environment (first EUR 250.0000, since 2011 EUR 450.000 per year)
- for farmers, foresters, commercial fish hatcheries
- specific suppositions (minimal damage, deadline for reoporting teh damage, priority of preventive measures...



# **Removing beavers**

- In cases of possible severe damages and missing or to expensive preventive measures
- Permission is given by local nature conservation agencies, for special cases (e.g. mill channels, sewage plants) there is general permission by the government (with restrictions)
- Normally trapping and killing but also direct shooting
- Beavers can be privately used for pelt and meat
- No permanent solution, as the territories are resettled





# Public relations work

- For the long term the "main pillar"
- Many conflicts arise from not knowig the beaver, it's activities and possiblites for conflict solutions









- Presentations, field trips
- Beaver exhibition
- Press articles, letters to the editor
- Book, brochures
- "Beaver back pack"

# County beaver "management plans"

- Traffic light system
- 3 nice colors, mainly for public and politicans



green: beaver territories with
 no or only minor conflicts
yellow: beaver territories with
 bigger conflicts, priority
 preventive measures
red: beaver territories with bigger
 conflicts, priority removal of
 beavers
flexible system

Some counties do it, others not (yet), as the maps show simply what's been done anyway.

### Beaver management: convey the chances

Beavers are almost perfect ...

- as key stone species they create habitats for many other rare and endangered plant an animal species
- as **indicator species** they show us, where rivers need space
- as flagship species the can promote nature conservation for riverine ecosystems
- as nature's engineers they revitalise water bodies with 15.000.0000 years of experience – at no extra cost

