

## **Beavers and the Siuslaw National Forest**

Beavers can play an important role in maintaining and enhancing aquatic and riparian ecosystems, especially when they build dams and ponds. They can also cause damage to roads, culverts, yards, and orchards/plantations. The Siuslaw National Forest recognizes their ecological significance, incorporating them into habitat management planning on the Forest, and coordinates closely with other agencies and groups in population and habitat management to address concerns of adjacent landowners.

### **Background: Beaver biology and behavior**

- Beaver occur throughout North America, and have shown they can adapt to a very wide range of habitat and forage conditions.
- Most people associate beavers with willow as primary forage, and the building of large dams, ponds, and lodges for safety, as commonly observed in most of North America. This behavior is not observed as frequently in the temperate rain forests of the Pacific Northwest. Recent research in the Coast Range and observations by local biologists indicate that:
  - Where dams are present, they provide excellent habitat for coho salmon and cutthroat trout along with a host of other wildlife species. Dams help store and moderate delivery of water and nutrients to downstream areas.
  - Large lodges and dams are now relatively uncommon in the Coast Range, probably due to geology/topography and flood frequency and severity. They may have been more widespread historically, possibly due to different land management and/or climate pattern at that time.
  - Not all our beavers build dams. Beavers in our area typically den and rear their young in burrows in stream banks or in disturbed areas. Burrows are commonly excavated by building on existing openings like pockets under root wads or sites dug and abandoned by other species.
  - Our beavers consume a diversity of forage species other than willow, with heavy use of vine maple and salmonberry.
  - Although little is known about total population number and dynamics, our beaver appear widely distributed. They will move long distances along streams to forage, find mates and pioneer new areas (1-18 miles in a recent OSU/APHIS study).
- These differences in habitat use and foraging behavior in the Coast Range make beaver easy to miss, and may lead us to assume they are not present and/or underestimate their distribution.

### **Agency roles and cooperation in beaver management**

- The Siuslaw National Forest manages National Forest lands, but not the fish and wildlife populations found there. The Forest's primary focus is restoration of habitat degraded by past management. We take an ecosystem management approach to meet the habitat needs of multiple species, with special emphasis on recovery of at-risk species listed under the Endangered Species Act. As an integral part of PNW stream ecosystems, beaver are

incorporated into the goals and planning for stream and riparian restoration projects. Designs for channel reconstruction, addition of large wood, riparian plantings and culvert replacements especially recognize and build on the role of beavers as beneficial 'environmental engineers'.

- The Oregon Department of Fish and Wildlife (ODFW) is responsible for managing all fish and wildlife populations, including beaver. By Oregon statute, beaver are classified as furbearers on public lands, and predators on private lands. Related management actions by the agency may include trapping and relocation of 'problem' animals, or issuing permits to hunt or trap them.
- The Siuslaw NF and ODFW coordinate closely to develop and achieve habitat and species management goals. The Forest supports ODFW in study and management of beaver, including recent assistance (funding and in-kind contributions of equipment and staff) for research on local beaver and outcomes from relocation of problem animals from private lands.

### **Beaver Relocation**

- ODFW is the lead agency for beaver relocation. This agency issues handling permits and has the facilities, staff and equipment to capture beavers. They have developed guidelines for considering and planning relocation.
- The Forest Service works with ODFW on relocations onto the National Forest where appropriate. Generally, the Forest has not identified a need for population augmentation, and therefore is unlikely to propose beaver relocation on its own. Funding and staff limitations will likely limit the amount of involvement and support the Forest can provide for this activity.
- Watershed Councils, stewardship groups and other interested individuals are encouraged to work with ODFW to identify needs/opportunities for relocation, suitable release sites and provide project support.
- Relocating beavers poses risk to existing populations and adjacent landowners. Considerations:
  - *Increasing competition or stress on existing animals*- Beavers may already be present in the area but not obvious. Potential relocation sites and surrounding areas should be carefully searched for sign, especially immediately prior to relocation.
  - *Disease transfer/introduction*- a significant risk that should be carefully evaluated prior to moving beavers into an otherwise presumably healthy area.
  - *Local support*- Notifying and enlisting support of private landowners and interest groups in the area will help ensure success.

### **Future Needs & Opportunities**

- More research is needed to assess beaver populations and their distribution on the landscape.
- Emphasize integrated design of in-stream and riparian habitat restoration to address both fish and beaver needs; highlight opportunities to encourage dam building at appropriate sites.
- Build public awareness of new information on local beaver behavior, beaver benefits, and non-lethal methods to cope with beaver (ODFW's Living with Wildlife: American Beaver).