

Bauer Lodges  
5/98





## Beaver at Smith & Bybee Lakes

Frank -

In answer to your e-mail, I've put together some information and thoughts about the S&B beavers. I've put information in the same order as the questions in your note. Let me know if you need more information than this.

I do not have an estimate of the beaver population at the lakes. Beaver populations are difficult to quantify, especially in large aquatic systems. I'm not concerned that we don't know the number at S&B. Beaver numbers will fluctuate based on habitat, food availability, access to and from other habitats, predation, water levels, and trapping pressure.

Keep in mind that part of the problem is that S&B are connected at high water to the slough and rivers, and beaver can move easily in and out of the lake system through the sloughs.

I still suggest that the water level control structure issue be resolved, and the lakes brought into natural tidal influence for a few years, before any action is taken to control beaver numbers. The beaver population will likely decrease in response to changes in the habitat.

Visual observations can be done, but at a site as big as these lakes, the effort would be considerable. Studies from the 1950's and 1990's have tried to correlate the number of beaver lodges with population levels, but with poor success. One study of caches (stored food) had better success. The techniques to assess beaver populations are often expensive and time-consuming.

I sense that folks are worried that the lakes will change because of beaver activity. That may be true over time. Beaver are nature's architects and engineers. Natural systems are not static, and change in response to many variables, including beaver activity.

2. While most beaver use lodges, others will den in a river bank or stream bank. All of them must have a "home" that provides a wintering house.

3. Beaver have few natural predators, but have been taken by coyotes, bobcats, cougars and bears. Trapping has been and will likely continue to have the most impact on these critters.

4. Beaver and nutria can co-exist because their food preferences are different. Nutria prefer to eat stem and leaf material in the warmer seasons, and switch to roots and rhizomes in the winter. Beaver forage on bark, twigs and branches of numerous tree species. Leafy material is a secondary food source. Actually, nutria are probably much more of a competitor to native muskrats which have similar forage requirements.

Nutria are non-native actually from S. America, and first introduced to Louisiana. The species has unprotected status in Oregon, and can be taken without permits or licenses.

5. Beaver were a very common species in the Willamette and Columbia river basins (before trappers and settlers arrived) due to the wide expanse of forested braided channels and slow rivers like the Tualatin (hence the name Beaverton). There no reason to think the species will completely leave the lakes when tidal influence is restored, because there will still be water, food and habitat for them. Since they are native, they do have a place in the ecosystem.

The result of returning the lakes to a tidal system are yet to be known. Beaver numbers will likely fluctuate more, in correlation with yearly fluctuations in water levels, but should decline overall. I don't feel I can say with any certainty how much the beaver population will change, because I feel we don't know enough about future water levels, climatic cycles (such as El Nino) and the impact of a more "natural" tidal influence on the vegetation at S&B.

A trapping and removal program will not eradicate the beaver. Beaver will continue to enter the lakes from the sloughs and rivers. Due to the inaccessibility of much of the lakes, and the remoteness of some of the occupied beaver territories, trapping will be time consuming and expensive. Based on the number of nuisance calls we get, it's likely that nearly all suitable beaver habitat in the system is already occupied, and a release somewhere else may not be practicable. Studies of beaver relocation projects have shown that the animals will travel 3 to 5 miles from the point of release.

Nutria do just fine in mud flats, as long as standing water and vegetation are nearby. This species often forages on land. The number of nutria may drop, but the species will still be present.

1. Thanks Frank, for your interest in critters, and most of all, for your patience!  
See you soon. Holly Michael