

**Comments related to SB191/AB163
relating to: the authority to shoot a beaver or muskrat causing damage to a highway**

These comments are being submitted on behalf of the Sierra Club Wisconsin and its 20,000 members in Wisconsin who care about proper, science-based management of Wisconsin wildlife and other natural resources.

Beavers serve as ecosystem engineers and create important wetlands that provide “keystone” wildlife habitats and can provide significant water quality benefits to watersheds in Wisconsin. This bill could lead to a number of damaging kills on a species that offers a lot of benefits to Wisconsinites and our ecosystems.

These benefits include:

- Beaver created ponds and wetlands, reduce flooding, improve water quality, and stabilize the geomorphology of streams. These wetlands are critical to provide structural stabilization of the hydrology, which reduces sediment transport and erosion, which in turn lowers the phosphorus loading in streams and rivers.
- Beaver dams with the resulting ponds, raise the water table which provides two important benefits, 1. The ground water table is recharged and 2. Stream temperatures and base flows are stabilized. Stream base flows during dry periods are higher because ground water enters the stream and has been filtered and cooled through the ground and stream bed, it then enters the stream as upwelling springs which have an average temperature of about 45 degrees. Stream temperature in rivers with beaver wetlands are warmer in winter and cooler in summer. This creates thermal refuge pockets which significantly increases over winter survival for insects, mussels and fish. These cool pockets refuges in stream are important micro habitats to reduce heat stress to invertebrates and fish during hot weather.
- Beavers build habitats for numerous birds and especially water fowl (ducks, geese, grebes, bitterns, herons, kingfishers etc.). Ospreys and Great Blue Herons are largely dependent on beaver ponds for nesting sites. In addition, these wetlands increase the overall bio-diversity carrying capacity for numerous species groups, including reptiles, amphibians, insects, fish, mammals and plant communities.
- Nuisance flooding is more effectively managed with "Beaver deceiver" flow devices and non-lethal management. The installation of flow devices is more cost effective than trapping and allows for the habitat benefits of keeping beavers wetlands on the landscape.
- Numerous endangered species habitats (emerald dragonfly and metalmark butterfly) and threatened species are supported and maintained in beaver pond habitats.
- With Climate change, beavers are critical partners for us to restore the natural wetland hydrology structure to our Wisconsin rivers. Improving water quality, providing wildlife habitat and reducing flooding are all significant values to Wisconsin citizens.

Coexistence and the protection of beavers as our ecosystem partner will benefit Wisconsinites and our efforts to mitigate the impacts of climate change, especially on increased flooding. SB191/AB163 does not represent this coexistence and should be opposed accordingly.