



Padden Creek Fish: Frequently Asked Questions

1. How has fish habitat improved in the Padden Creek watershed in recent years?

The City is committed to improving water quality and fish habitat in the Padden Creek watershed. Since 2014, an unprecedented \$9.5 million was invested in the Padden Creek corridor via three large projects: **Padden Creek Daylighting, Padden Estuary Restoration, and stormwater treatment facilities** for 90 acres of stormwater runoff from downtown Fairhaven.

2. What kind of fish are in Padden Creek?

Padden Creek hosts a diversity of **resident fish** that live in the creek year-round such as sculpin, three-spine stickleback and cutthroat trout. Padden Creek also hosts a number of **anadromous fish** species that migrate from marine water into freshwater to spawn including pink salmon, Chinook salmon, chum salmon, coho salmon, steelhead trout, sea-run cutthroat trout, and Pacific lamprey. **Both steelhead trout and Chinook salmon are threatened species that are protected under the Endangered Species Act.**

3. When are salmon in Padden Creek?

Each of the salmon species have their own **spawning schedules**. So far this year, we observed a few **pink salmon** in August and early September, twenty-one **Chinook salmon** in September, four **coho salmon** in early November, and forty-nine **chum** in late November/early December.

4. What kind of fish monitoring is being conducted?

The City of Bellingham is conducting weekly **spawner surveys** to document returning adult salmon in Padden Creek. Surveyors walk the creek counting **live** and **dead** spawning adult salmon as well as **redds**, which are fish nests dug by female salmon in streambed gravels.

5. Who is doing the spawner surveys?

Spawner surveys are conducted by **City of Bellingham** staff and **Washington Conservation Corps (WCC)** crewmembers in partnership with the Nooksack Salmon Enhancement Association (NSEA) and Washington Department of Fish and Wildlife (WDFW). All survey staff have been trained in WDFW spawner survey protocols.

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6. What areas of Padden Creek are being surveyed?

We survey a **two mile** segment from the **mouth** of Padden Creek all the way up to **30th St**, including the first reach of Connelly Creek. This survey segment includes the recently constructed stream channel (Padden Creek Daylighting project) between 17th St and 22nd St.

7. When are surveys conducted?

Spawner surveys occur **once a week** from **September** through **March**. The City, in collaboration with our partners, will continue this monitoring in future years to create a long-term data set. Spawner survey data will be publicly available at the end of each survey season after data have been validated and analyzed.

8. Are fish using the new stream channel?

After completion of the Padden Creek Daylighting Project, both coho and Chinook salmon were observed above 24th St, upstream of the newly created stream channel. This means that **fish are using the new area to travel upstream**, however we have not observed fish spawning in the newly constructed channel yet.

9. Are the fish ladders preventing fish from migrating upstream?

As expected, athletic fish species like coho and Chinook were observed above both fish ladders this season. Chum, on the other hand, are weak swimmers that tend to spawn in lower reaches of streams. (In some systems chum salmon actually spawn right in the intertidal zone at the mouths of rivers!) This year chum were observed above the 12th St. fish ladder but not above the upstream ladder at 16th St on Padden Creek.

The fish ladders on Padden Creek are **not complete barriers** to fish passage under normal winter flow conditions, however they are both considered **partial barriers** especially under low flow conditions. Both the City and WDFW are aware of these issues and will be working toward improvements during the 2016 summer season.

10. Was the chum run low this year?

This year we counted 49 adult chum salmon in the creek. This number is actually up slightly from recent years. During the last five years returning chum observations ranged from 7 to 16 total individuals per year. This contrasts with the chum returns observed in the late 1990's and 2000's which ranged from 200 to 1,000 individuals per spawning season. These larger chum returns, although memorable, were associated with a period of hatchery supplementation and did not persist through time. So, based on this history, the chum run in Padden Creek this year was **typical of recent years**. We now have a tremendous opportunity to evaluate the creek's ecological response to the community's investment in Padden Creek and learn if fish returns will increase in response to improved habitat and water quality.

11. Is wood in the creek blocking fish passage?

While some wood may occasionally act as a barrier to fish passage under certain flow regimes, **large woody debris** is a critical component of a **healthy stream ecosystem** and often does not pose a barrier to migrating fish at all. City crews regularly monitor culverts and roadways for blockage problems. City maintenance crews consult with Natural Resources staff before altering wood in the stream. Removing wood from the stream requires permit approval from WDFW. We request that concerned citizens contact the City of Bellingham Natural Resources Division if they feel there is a need for wood removal. The City will assess the situation and determine the most appropriate action to balance the needs of people and fish.