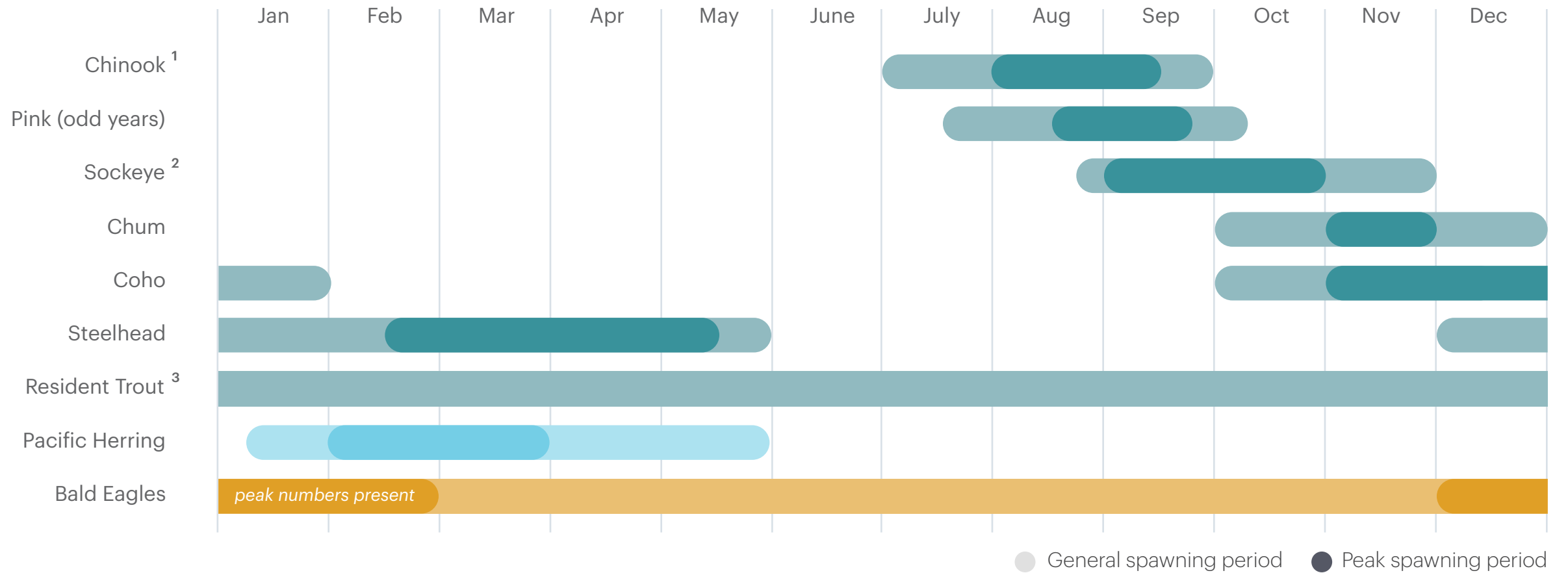


Fish spawning periods in Squamish waterways

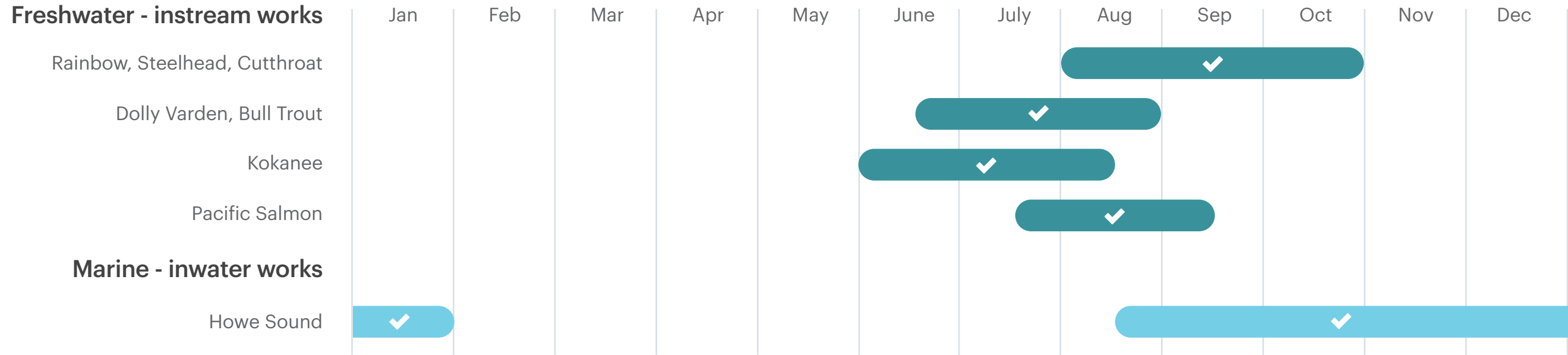


¹ **Chinook:** The peak spawning period for Chinook is the end of August; the numbers tend to decline quickly after early September. There is a small population of Fall Chinook (only a handful of fish) that begin to migrate into the Squamish River system in September.

² **Sockeye:** The population is limited to a very small number in the Squamish area, possibly only a few pairs. They are encountered in the Mamquam and Cheakamus rivers every season.

³ **Resident Trout:** Includes Bull, Cutthroat, Rainbow and Dolly Varden. These species remain in the river systems around Squamish year-round with no significant peaks in population throughout the year. Rainbow and Cutthroat Trout spawn in the spring, while Bull Trout and Dolly Varden spawn in the fall.

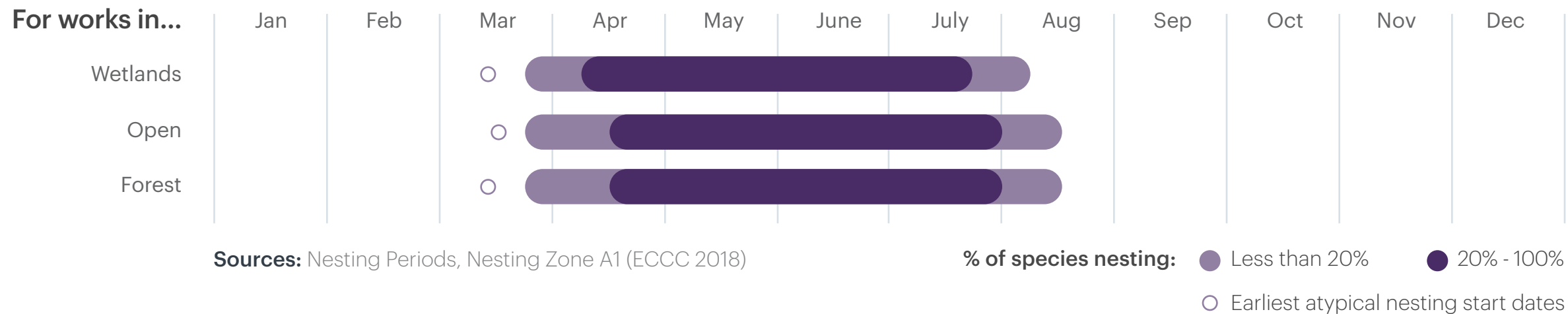
Fish & fish habitat - least risk windows



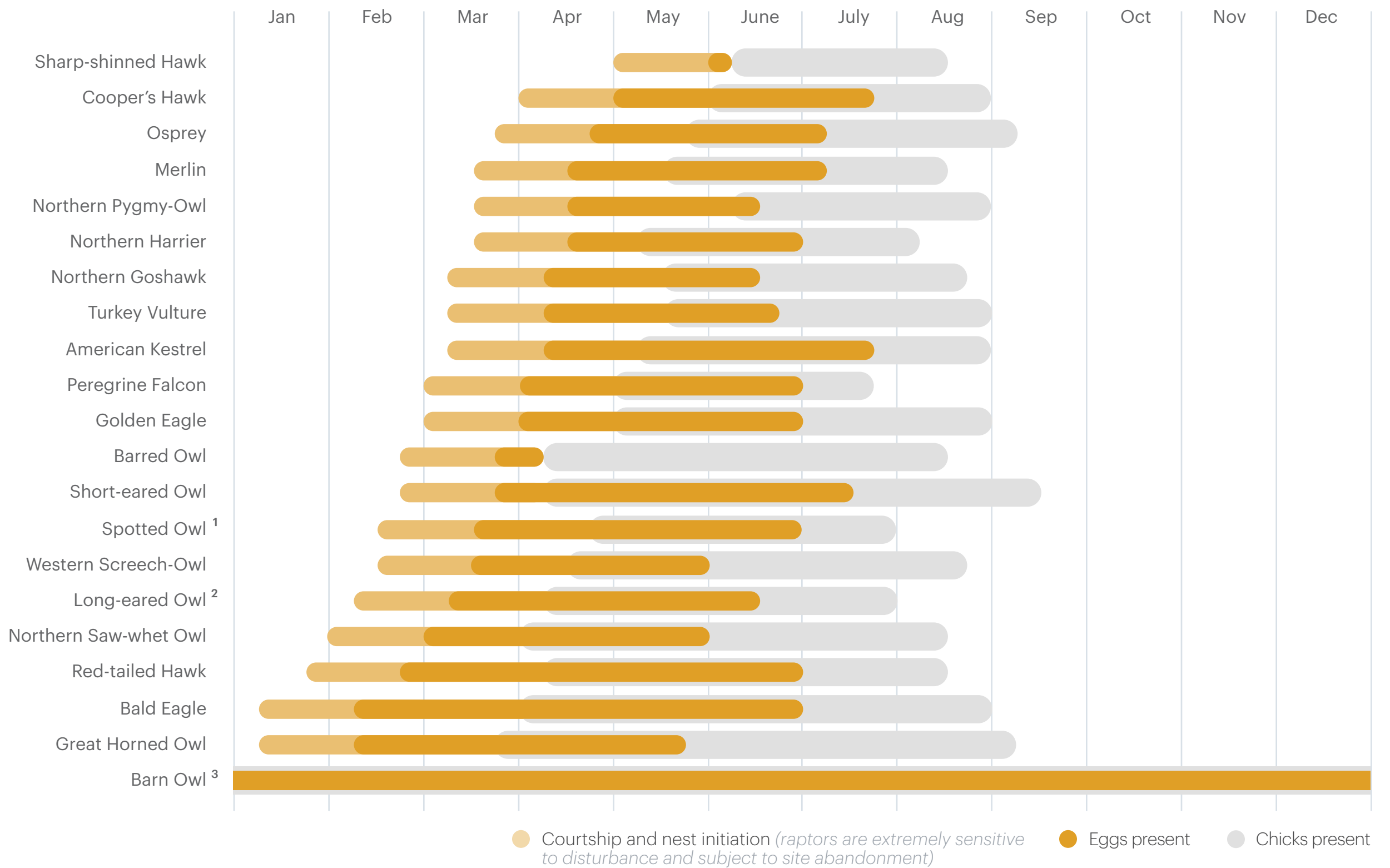
Note: In general, the lowest risk period for freshwater streams is when no fish spawning is taking place, there are no eggs or alevins (fry with yolk sacs) within the stream gravels and no over-wintering juveniles are present.

Sources: Marine/Estuarine Timing Windows for the Protection of Fish and Fish Habitat, Area 28 (Vancouver), Howe Sound (DFO 2014)
Guidelines for Reduced Risk Instream Work Windows Ministry of Environment, Lower Mainland Region (MOE 2006)

Migratory bird nesting periods



Raptor nesting



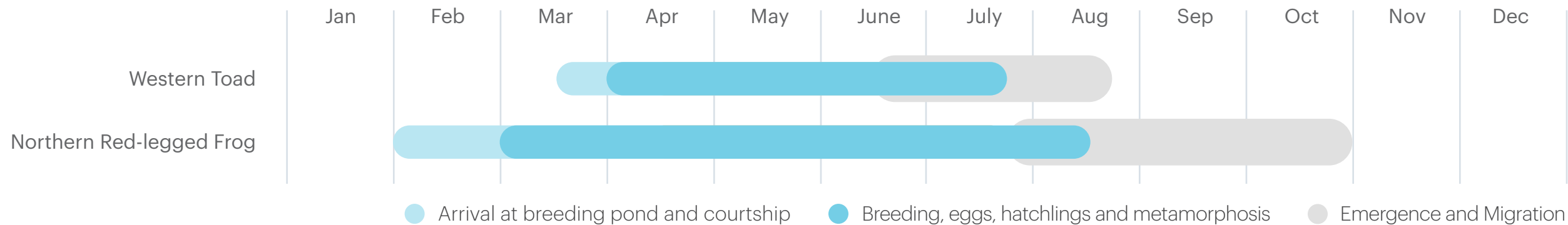
¹ **Spotted Owl:** Functionally extirpated from the Squamish area; however, suitable habitat exists.

² **Long-eared Owl:** May make rare breeding appearance.

³ **Barn Owl:** Typically breed from early March to May in BC, but may breed at other times of the year if prey is abundant.

Source: Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (BC FLNRO 2013); modified to include only species that are known to breed within the Squamish area (J. Findlay and C. Stefanison, pers comm, March 30, 2022)

Amphibian breeding

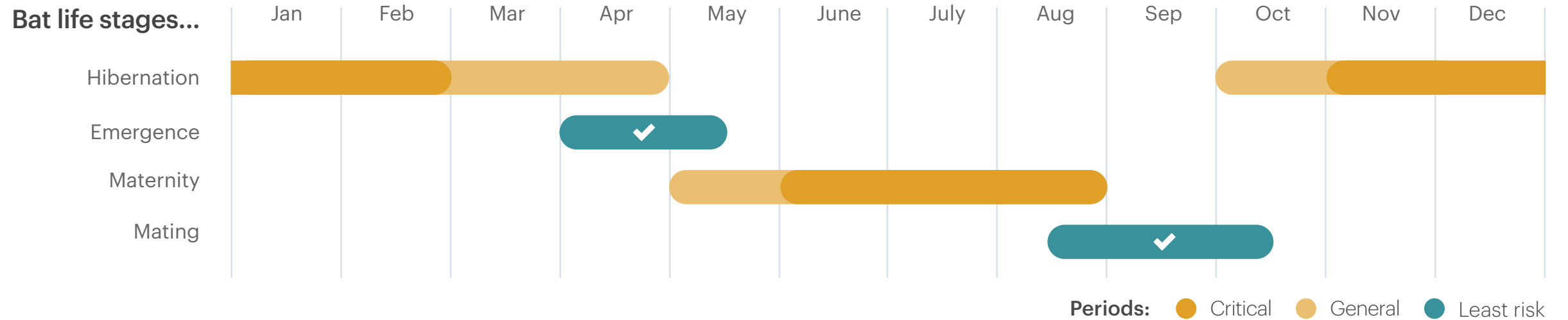


Note: amphibian breeding varies annually, with temperature and ice cover, and by location.

Sources: R. Shephard, Western Road Monitoring Project, Squamish Environment Society, pers comm, March 28, 2022

COSEWIC Assessment and Status Report on the Northern Red-legged Frog *Rana aurora* in Canada (COSEWIC 2015)

Bats



Hibernation: This is a sensitive period. Hibernating bats use the fat reserves to hibernate, and any disturbance is detrimental. The presence of White Nose Syndrome in North America makes this period even more sensitive. Bats hibernate in caves, mines, rock crevices and some use large trees.

Emergence: This is a risk period. Bats seek summer roosts and mating occurs.

Maternity: This is a sensitive period. Females are pregnant and have their pups. They require a lot of resources to feed their newborns and gain fat reserves for the winter. During the maternity period ,bats will use rock crevices, talus cliffs with good sun exposure, snags, large trees with cavities and signs of decay, anthropogenic structures, and artificial roosts

Mating: This is a least risk period. Pups can fly and bats should have the fat reserves needed to survive the winter.

Note: Timing may vary between locations and years, and can be refined by conducting project- or location-specific bat monitoring.

Source: F. Martinez, South Coast Bat Conservation Society, pers comm, March 28, 2022