

NATURALISTS' NOTES

The Return of the Chum Salmon

There's something fishy going on in local waters these days. The gathering of eagles at the mouth of the creek and the dank smell of decaying fish signal the return of the chum salmon. The chum (*Oncorhynchus keta*, meaning hook-nosed) is also known as the dog salmon due to the canine features of its jaw line. For 3 to 5 years the chum have travelled the Pacific and now, sexually mature, are returning to the streams of their birth. Theories abound as to how they find their way back to their origin. Some researchers claim that the salmon are guided by the sun or the Earth's magnetic field. Others suggest taste and smell play a role.

Both sexes stop eating as they approach the spawning stream. This allows more room in the body cavity for the eggs and sperm. Once at the gravel beds the female begins to dig the nests. The male, now a barred purple in colour and armed with a strong, hooked jaw and hormone-sharpened teeth, maintains close vigilance, repelling other males and making piscine passes at his chosen one. With sideways slapping motions of her tail the female scoops a hollow in the gravel and as she deposits from 500 to 2000 eggs the male swims over and releases a cloud of sperm or milt. Up to 4000 eggs are laid in a series of nests called redds. Exhausted by their labours the parent fish stay guarding the redds until life ebbs away and they are swept downstream. Ragged and torn they die, their mission accomplished.

But all is not over. The carcasses of dead salmon provide nutrients to feed eagles, gulls, bears, otters, minks and others. Streamside trees and shrubs benefit from this rich supply of food, as does the forest floor where bears drop half-eaten carcasses. In the spring, when the eggs hatch, the hungry young fry gorge on plankton nourished by the nutrients from their parents' bodies.

In 3 to 4 months the young smolts are now ready to enter the Pacific and the cycle of life continues. It is a cycle fraught with many dangers. From 4000 eggs only 2 chum will return to spawn. Predation, disease, and human and environmental hazards take a tremendous toll.

For thousands of years the chum salmon have returned to the streams that gave them birth and nurture, and for thousands of years the native people have thrived upon this reliable food source. If you wish to observe this annual feat of nature visit the Sliammon Hatchery or the Lang Bay spawning channels and witness the climax of this amazing migration.

This article was written by Christine Woolcott for the Malaspina Naturalists Club. For more information on local animals readers can contact the Malaspina Naturalists Club at 604.485.6134.