Catch, Photo and Release

Like Joel, I'm a firm believer in catch and release fishing. Also that live salmon take much better photos than dead salmon.

The photo above was taken last July in Georgia Strait near the mouth of the Fraser River. Look at the eye of the salmon – it is very much alive. Also the skin colour is very different from a dead salmon. The back of the salmon is almost an exact match to the colour of the water in the distance.
Salmon and herring have chromatophores, cells which contain pigment or reflect light, enabling them to change colouration as a form of camouflage to match the surrounding ocean. Chromatophores are present in the eyes, skin and scales.
There are several types of chromatophores, but two primary types are melanophores and iridophores. Melanophores cover the top of the fish and contain blue, green and brown pigments, to give colour to the back so it matches the water colour of the depths below. This colouration is controlled by nerve signals and changes can be relatively fast.
Iridophores are very silvery and usually start just above the lateral line and increase in density until they are almost solid on the underside. They contain layers of guanine crystals arranged in plates which reflect the light so the fish appears silvery. Diffraction of light between the stacked plates generates iridescent colours. Iridiphores are controlled by hormones and the pigment migrations are slow.
I volunteer at a local fish hatchery, and during our school tours we give each student a plastic cup of water containing a coho fry to release in the river. We ask the children to watch the colour of the back of the salmon fry as it swims into the river and adapts to the background of rocks and gravel below. This adaptation typically takes less than thirty seconds.

The key point is that the vivid colours on the salmon's back are under neural control and fade quickly after the salmon dies. That is why dead herring and salmon lose colour and become silvery. Live salmon take much better photos than dead salmon.

After netting a salmon intended for release leave it in the water, reviving, in the net beside the boat and remove the hooks. The salmon can be "tailed" by carefully gripping an exhausted fish at the wrist of the tail. When the photographer is ready with the camera the salmon is lifted gently from the water by placing the other hand under the mid-section of the salmon to support the weight. Total time out of the water for the photo should be ten seconds or less, and the fish is then placed back in the water for further revival (if necessary) and released.

Use wet, bare hands rather than gloves which will remove slime and leave the fish vulnerable to infection later. With gloves there is also the possibility of transferring an infection from one salmon to another.

The salmon in the photo was back in the water within a few seconds, and was quite happy to be on its way again. It was modest in size, perhaps twenty pounds, but there is a special, almost spiritual reward to releasing a salmon larger than thirty pounds – give it a try sometime.

Catch and release fishing is great.

Bill Haymond is author of "The Science of Salmon Fishing", which is available at www.thescienceofsalmonfishing.com.