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As stewards of our watersheds, it is easy to get discouraged. There are ESA listings for Orcas and rockfish and salmon. The abundance of wild fish is at a fraction of their historical levels. Human population growth with associated land and water use - Forestry, fisheries, agriculture, development – all exact their tolls. At times it seems like most people don't care about the health of the environment; that they feel entitled to treat the natural world as something over which they have dominion and innate rights of use. Most of our political representatives rarely look further ahead than their two or four year term, and their consideration of cumulative impacts to our natural resources is too much to hope for. The priorities, the prerogatives, are growth and consumerism – it's how we measure progress and success. It often appears that the health of the environment comes a distant third, and then only after ignoring it becomes impossible.

Luckily, there are others who feel differently. There are those of us who are inspired by the natural grace around us. We will each do what we can, individually and collectively, to protect and restore watersheds and advocate for smart, science-based, and responsible growth and resource management. Against great odds we've made a lot of progress within the last decades. We are breathing much-needed change into the status-quo management of salmon and steelhead hatcheries and fisheries. There is talk of a network of marine parks and protected areas in Puget Sound and off the coast where, like national parks on land, we will protect and conserve the habitat and biota that live there. There has been a public outcry against the spread of salmon aquaculture in open net-pen feedlots. In marine fisheries, there is new interest in selective fishing techniques that allow commercial and tribal harvesters to release unharmed the non-target protected fish species that are currently killed as collateral damage. There has been progress, but there is still a lot of work to do.

What inspires and motivates us to keep working? Among other things, it's appreciating the details. It's recognizing and valuing the little things, the sum of which are greater than the whole.

Which brings us to rental cars.... It's been said that in the history of the world, no traveler has every taken a rental car through the car wash. Renters are not invested in their rental car – it is simply a means to an end. Responsible maintenance comes with being invested. Similarly, the more the public is invested in our watersheds, the more likely they are to care for them. In that way, understanding and appreciating ecology leads to responsible stewardship. For this reason, outreach and education are fundamentally important to protecting the environment; and Whidbey Watershed Steward's education programs are central to that mission.

How do you get people to appreciate and be inspired by ecology? If you can teach them to be aware of it, the rest comes naturally.

Almost every day we drive or bike on roads that cross streams. Some of the streams are named, many are not. Some flow year round, others go dry every summer. It's easy to not notice them. Most people don't. I urge you to encourage people to think about the streams they cross every day. Think about the downstream movement of water, rock, and wood. Think about how different the conditions in the stream are during the summer compared to during a December storm that delivers several inches of rain. Think about the invertebrates, the fish, the birds and mammals that interact with and rely on the stream.

Consider a mayfly – a diminutive aquatic insect that has a story of its own to tell that goes well beyond being a lure used by flyfishers to catch trout. Here's a bug the size of an ant that weathers a huge range of water temperatures and flows. It feeds on algae or smaller insects, and works hard to avoid being eaten by fish, dippers, and other invertebrates. While living for a year under a rock in a stream, the mayfly nymph will molt some fifty times, each time shedding its exoskeleton and growing to fill a new, slightly larger one. The last time it molts the mayfly emerges as a completely different animal – an impossibly fragile flying insect that looks nothing like the armored alien it was a minute earlier. Mayflies of the same species molt in a synchronous fashion, largely driven by water temperature and the photoperiod, so on that last day when they turn into flying adults they emerge together in the hundreds or thousands to form mating swarms that rise and fall over the creeks.

As flying adults they live for just a few hours (they are ephemeral, earning them the handle ‘Ephemeroptera’) – long enough to mate in the air and deposit their eggs in the water, eggs that will produce next year’s hatch. Like salmon returning to spawn, the adult mayflies don’t feed. Most don’t have mouths or stomachs because they won’t be alive long enough to eat – their sole focus is to reproduce. The miraculous transformation from a nymph to a flying adult exists because, without it, nymphs would be inexorably swept downstream by the current and upper stream reaches would be devoid of mayflies. As flying adults they are able to deposit their eggs further upstream, recolonizing habitats where there is less competition. There are dozens of species of mayflies that do this in Island County streams. Stoneflies, caddisflies, and many other aquatic insects undergo similar transformations here so that on any given day of the year there are insects emerging from Island County streams to fly upstream and mate. This and so much more is going on every day in our streams – the streams we’re so often driving over or beside without even knowing it. They are fantastic and alien worlds, right under our noses. We’re only just beginning to understand their nuances and complexities.

Appreciate the interactions between all these things – their ecology. When we draw streams on maps, they end in Puget Sound. The ecology of streams doesn’t end there – it’s just getting started. Think about the fresh water and food that our watersheds deliver to the Chehalis estuary habitats – habitats we now know are used by millions of fish every year. Think about the salmon returning marine nutrients to our watersheds, growing forests which shade streams and produce oxygen. The trees drop leaves into the streams, and the leaves feed the invertebrates, which feed the fish, which deliver the nutrients for the trees. The connections are incredible, and sometimes tenuous. In many ways they can be easily disrupted – an undersized culvert that does not pass wood or fish, a stream channel that is ditched and straightened, or too many fish caught at sea and not allowed to return to spawn. In other ways it is incredibly resilient – luckily for us. Whether we’re thinking about it or not, ecology is always there, always happening. Like breathing.

The root of inspire is 'breathing into.' I hope you will continue to be inspired by the environment and its ecology and that you will inspire those around you. Be inspired by those who are working hard to protect and restore watersheds and advocating for science-based hatchery and harvest reform. Be inspired by those who are challenging the overwhelming political and social forces that hold 'growth' above all other principals. Be cautiously optimistic. My 9-year old son would say the challenges aren't overwhelming. They're overwhelming. Together we can overcome them. Inspiration is contagious – share it and it will spread.