



SYSTEMS THINKERS IN STEM



A CONVERSATION WITH:

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Which systems thinking skills do you use?

#2: Consider the Wholes I think about the different systems and people involved, then how parts might interact. The systems are extraordinarily complex, and a lot of components are unknown. I try to learn as much as I can about each system and how their parts interact, and then be open to novel connections. When they surface, I try to act on the best ones and encourage those I've identified in each system to work together.

#9: Identify Relationships Identifying the relationships among people or parts of a system is key to imagining how they might complement parts of other systems and potentially joining them into a new effort.

#16: Use Leverage Points
I sometimes view people with
resources as leverage points.
Linking people and their
resources from different
systems together can lead to
synergistic outcomes.
Sometimes systems need the
addition of a catalyst, for
example money or another
resource, to get a reaction
going.

1. What is your role within the STEM community?

My role is that of a connector and occasional disrupter. As someone who works in natural resources management, I've become acutely aware of the fast rate of change in the environment and the slow rate of change in curriculum to prepare students for the uncertain future. So I've been trying to find ways to connect the educational community with the environmental science community. I disrupt by telling the ecosystem recovery community that they are underutilizing the only resource large enough to influence change: students.

- 2. What complex problem do you address in your work?

 I address the complex problem of climate and environmental change compromising the health of Puget Sound ecosystems and their ability to continue to provide the natural resources tribes and others depend on. I work to identify opportunities for people to work together to increase efficiency and effectiveness around preserving these ecosystems.
- 3. What elements do you need to consider when addressing this problem?

People need to find ways to work together on common goals to increase their efficiency and effectiveness. Getting people to work together well requires consideration of elements like willingness to partner, access to resources, knowledge and skill.

- 4. How did you get to where you are today?
 - I was not very motivated in high school. After I graduated, I worked and went to a school for performing arts for a year. I lived in Mexico to learn Spanish. I went to the UW and finally graduated in International Studies, then I worked as a counselor in a group home, then in construction. In my late 20's, I returned to the UW to study shellfish aquaculture. I was hired by Suquamish and never left. I was successful because all the skills I picked up in my circuitous path turned out to be valuable.
- 5. What advice do you have for becoming a systems thinker?

 If you are a specialist by nature (driven to be the best in one thing),
 keep your eyes open to how that direction links to other systems. If you
 are more of a generalist, try to achieve some ability in one thing, then
 try something else. Build up a lot of skills because they might allow you
 to see connections across disciplines.