

Hydesville at Hely Creek



Classifying Streams

Does it flow all year?

Hely Creek is one of the few Van Duzen tributaries that run all year long.

It is considered to be a perennial stream.



The Stream Flows sometimes.

Intermittent streams normally cease flowing for weeks or months each year.

Ephemeral streams flow only for hours or days following rainfall.

During unusually dry years, a normally perennial stream may cease flowing, becoming intermittent for days, weeks, or months depending on severity of the drought.



What about this stream section?



Classifying water

Is it a run, a riffle, or a pool.

Define!



Run, Riffle, or Pool



Run, Riffle, or Pool



Run, Riffle, or Pool



Jessica, Anna, and Tone sketch the stream site.



Collecting and recording data

Tone takes water quality temperature and ph.

What temperature do you predict?

What temperature do salmon like?



Collecting and recording data

Jessica takes oxygen levels.

Why is this so important?

Where would you see the highest percentage of oxygen: a pool, a run, or a riffle?



Water moves: what is the flow?



Measuring and collecting rock samples

This is called D₅₀. What does that mean?

How do we do this for our habitat study?

Why do we do this for our habitat study?

What does it teach us?



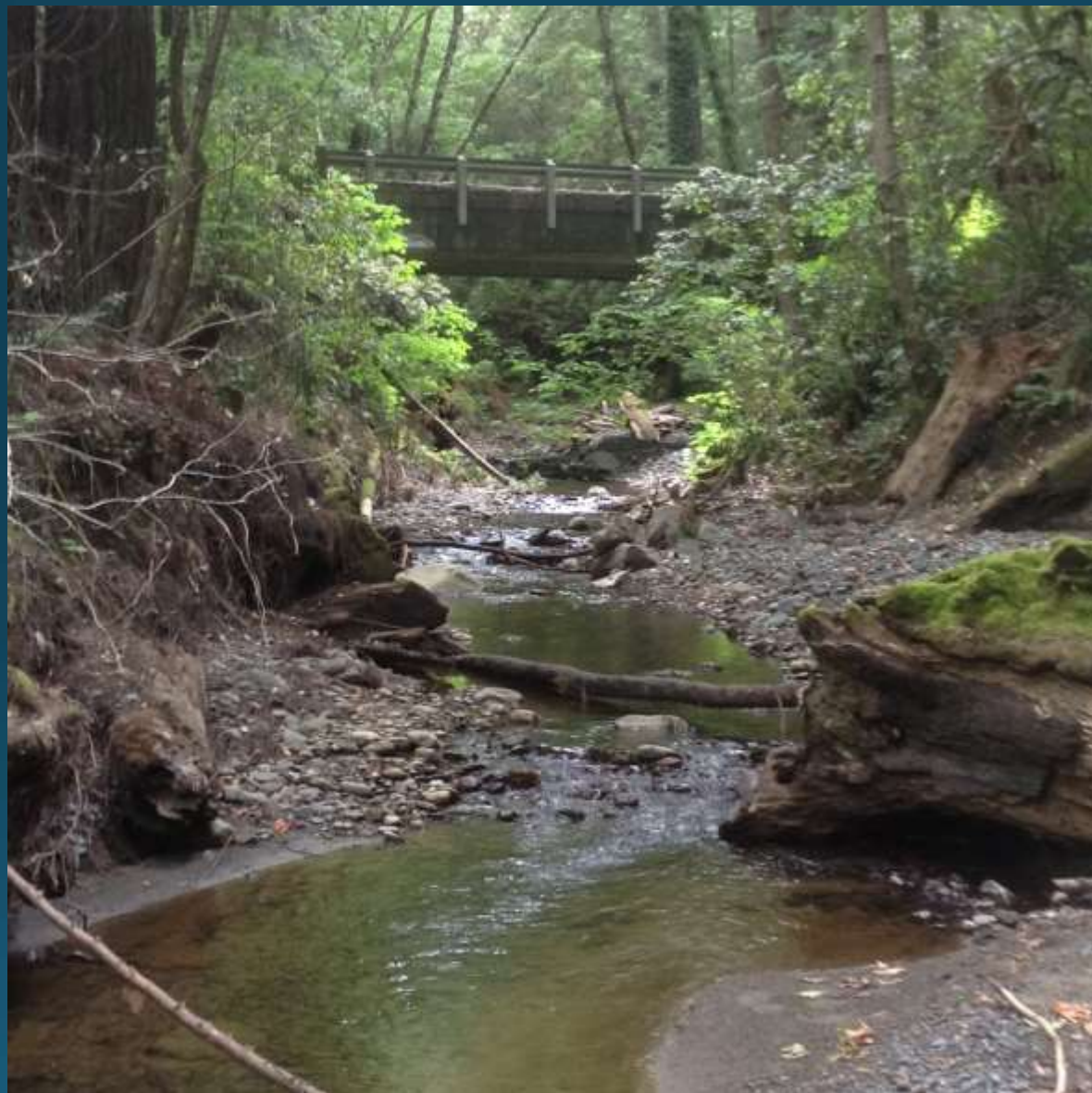
D50



You try it! Here is our data. What is the median?
What does it mean?



Heading Upstream



Look what we found on our way
upstream.



Is it a pool, a run, or a riffle?

Lets take some
depth
measurements



How is the temperature upstream?
Jessica checks it out.



Anna and SalMan record location and temperature.
What factors would influence temperature?



Installing Hobo Water Temperature Pro v2 Onset Probes

Together with our TEAM of resource specialists, the Young Scientists placed 12 out of our 24 probes in the Van Duzen Watershed in the summer of 2016.

Friends of the Van Duzen and Friends of the Eel have been installing probes for the past 4 years.

In the summer of 2015, for the 1st time, we retrieved 100% of our probes.

What happened to them?

We are hoping for a 100% retrieval rate in the summer of 2016.



Young Scientist Jessica prepares to install the temperature probe with SalMan.



Probe Silence Vow

Students in the Kids in the Woods Young Scientist Project took a vow of silence as to the exact locations of the temperature probes.

Along with the resource scientists, the young scientists will be retrieving probes in the last week of September and the first week of October.

Wil we get them all? We shall see. Stay tuned for data analysis of temperature in the Van Duzen Watershed.



Lets collect samples from Hely Creek.

Turn over the rocks and see what aquatic insects live in a stream.

Why are they so important?

What do they tell us?

Why are they so interesting to look at through our scopes?



Noah collecting samples at Grizzly Creek.





Looking at Macroinvertebrates.



Scoping it out!



Learning with Dr. Paul Trichilo



Noah at Grizzly



What did we find?

We found 12-15 Mayflies.

We found Stoneflies.

We found Caddis flies.

One huge one.

One naked one outside its shell.

We found fly larvae.



Mayfly



Stonefly



Caddisfly



Heading Upstream



Finding environmental pollutants



What should we do? What should we look for? Safety first.





Analyze closer. Wear gloves. Take sample. Report



Active Young Scientists observe, take data, and report.

