

Re: Estimating water quality

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Carsten Troelsgaard wrote:

I ask because my childhood luggage (my father was a gardener & fliefisher) says that the long swaying algae (local name: SheepTails) signifies a lower waterquality – this may not exactly be what's at the pictures, in any case it's at odds with the fact that it's swaying in non-polluted water welling out from cracks in the chalk (catchment area largely woodland)

Carsten

I concur with George that you have an algal bloom. The green stuff doesn't bother me quite as much (like he says, it can be seasonal) as the brown. If the green is there year round in a spring, you have a nutrient problem—such algae are common in degraded surface streams, but assuming your groundwater is colder than mine (13C) you shouldn't be getting this much gunk in a spring. Depending on the spring, recharge can be coming from tens of kilometers away— or it may be as simple as a single malfunctioning septic field or cattle lot upstream, or a pulse of fertilizer which got sent underground through the system.

Two points:

1) knowing some basic biology is good for rough estimating water quality without testing, but these are only indicators that the water is not of highest quality. A spring can be crystal clear and lethal, too. As one local hydrogeo says, "If plants won't grow in it, would YOU drink it?"

2) Doing a full spectrum water quality does take a pretty penny, but if you do a lot of testing, you don't need health department microdecimals on your answer, and you have a clue what you might find and what data you suspect (why test for silica if you are looking for nitrate?) some of the field test kits (Hach kits, Lamotte kits) are pretty cheap but reasonably accurate. I cannot afford a full kit of research level instrumentation, however, there are pH meters, DO meters (look in sporting goods), conductivity meters, etc. for quite reasonable prices. www.forestry-suppliers.com, www.benmeadows.com etc.

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