**Day in the Life of the Hudson River 10/10/13 Data**

**Above the Troy Dam**

**RIVER MILE 200**

**Hudson Crossing Park, Lock 5, Schuylerville , Hudson River**

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**Where EPA is doing their dredging**

**Nancy Robertson, Cornell Cooperative Extension, 4H**

**Homeschool Group, 7 students K2-7th and 4 adults**

**43°00.044’ N & 73°51.078’W**

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| **Macintosh HD:Users:margie:Documents:Snapshot Day:2013:photos:Lock 5:IMG_3936.jpeg** | **Macintosh HD:Users:margie:Documents:Snapshot Day:2013:photos:Lock 5:IMG_3928.jpeg** |

**Location:** Kayak launch**,** Hudson Crossing Park, Lock 5 in Schylerville, Saratoga Co.

**Area:** Old industrial site now used for recreation – waterfalls, boating, fishing

**Surrounding Land Use:** urban/residential several houses on the site; 85% forested; 1% beach, Industrial/Commercial dredging downriver, lots of barge activity

**Sampling Site:** Small beach area, pier and lock, construction gravel in the area and covered in vegetation

**Plants in water:** yes - <5% has water celery

**Plants in area:** oak, sumac, honeysuckle

**Water Bottom:** sandy, muddy, bedrock nearby

**Water depth**: 3-5 ft.

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| ***ITEM*** | ***Time*** | | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  | |  |  |  |
| Air Temperature | 11:45 AM | | 17.2 °C  63 °F | ***Noted water is warmer than the air*** |  |
| Wind Speed |  | | Beaufort #1 |  |  |
| Cloud Cover | Partly cloudy to mostly cloudy | | | | |
| Weather today | No rain today | | | | |
| Weather past few days | Heavy rain on Monday, temps. In the 60-70°s range Tues & Weds | | | | |
| ***Water Temperature*** | 11:00 AM | 17°C  62 °F | |  |  |
| ***Water surface*** | Water calm | | | | |
| ***Turbidity - secchi*** | 12:00 PM | .75 meter | |  |  |
| ***Chlorophyll*** | 11:00 AM | 0.5 | |  |  |
| ***Chemical*** |  |  | |  |  |
| pH – color drop kit | 11:15 AM | 7.4  7.4 | |  | Average 7.4 |
| Salinity – quantabs | 10:30 AM | .06\* | | \*below conversion scale |  |
| Dissolved Oxygen – digital titration | 11:15 AM | 8.66 ppm  9.38 ppm | | 17° C | 80% saturation |
| ***Flow*** | **Secs/1524 cm** | **Cm/sec** | | **Knots** | **North/South** |
| We measured a stick traveling a 50 ft. run in the water. This year we sampled below the bridge we have used in the past. The river is “crowned” here – very shallow and fast in the middle. We measured the current in the deep channels to either side. There were waterfalls above and bridge abutments just north of the site. | | | | | |
| ***50 foot run – convert-***  ***1524 cm/avg. time recorded to get avg. cm/sec*** | 28 sec  27 sec  26 sec | 56.4 cm/sec | | 1.1 kts | South |
| ***Core*** | ***Length*** | ***Abundant*** | | ***Common*** | ***Rare*** |
| ***11:30 AM – 2-3 ft. deep water – at small beach – water celery nearby*** | 12 cm – oxidized top – 2-3 cm | mud | | Freshwater mussels in a mound (perhaps something’s feeding spot) | Clay  Sand  Gravel |
| ***Shipping*** | All day Tugs and Barges | Heading both ways | | Part of the dredging operation | Moving river sediment & sand |
| ***Other Items*** | Blue heron, Vs of geese (~30) , pileated woodpecker’s head | | | | |