

Dear Colleagues:

Our May meeting will be a good family event, featuring the Societies top projects from this years Science and Engineering Fair covering Riverside, Inyo, Mono, and San Bernardino Counties!

Meeting will be NEXT Thursday, May 2nd at the LSA Associates offices at 1500 Iowa Avenue in Riverside.

Social 6:00 pm
Dinner 6:30
Speakers 7:00

Please RSVP to Dixie Lass **ASAP** at 951-784-2168 or dixie.lass@att.nete

Our Speakers are,

The returning team of Hannah Johnson and Hannah and Zach Larsen “Using Fossils to Reconstruct a Miocene Ecosystem in the Barstow Formation: Yr 2,”

Zachary Larsen is a 10th grader at King HS in Riverside. In addition to Geology and Science fair, Zachary plays guitar, and is an avid videographer. He has his own YouTube channel with over 300 subscribers and is a member of King HS's video production class, which broadcasts a weekly television show. He volunteers for the March Air Museum.

Hannah Larsen is a 10th grader at King HS. In addition to Geology and Science fair, Hannah is a member of the National Honor Society, California Scholarship Foundation, and Key Club. She was a competitive gymnast for many years and now is on the King HS track and field team as a pole vaulter, as well as competing for Hangar 18 at indoor rock climbing. She volunteers for the Riverside library system.

Hannah Johnson is a 10th grader at King HS. In addition to Geology and Science fair, Hannah is an avid runner, competing for King's Cross Country and track and field team, lettering in cross country as a sophomore. She is an active member of The Grove's youth group.

All three students also are members of King HS's Odyssey of the Mind creativity team. This team has been regional and state champions for the last three years, advancing to the World Finals.

“An Ancient Community Discovered Under a Bed, “Ian Hughes, the STEM Academy, Riverside Unified School District.

The Ediacara Biota are the Earth’s oldest macroscopic organisms. They lived on the ocean floor 575-545 million years ago and are globally distributed. Scientists have excavated fossil beds in this area in order to collect data. A new fossil bed was excavated which resulted in the following three hypothesis: The taxa on this bed are similar taxa on their beds, The biodiversity is similar to other beds and these fossils are preserved in situ. After excavating and reconstructing this bed fossils were logged and compared to fossils on other beds. One particular fossil is very abundant on this bed and has not been found on other beds. This fossil is what is now called Bundle Of Fibers. It falsifies hypothesis number one because it is not found on other beds. It also proves that hypothesis number two is wrong because it is dominated in one species and it has few other species. To attempt to falsify hypothesis number three The angles of the fossils have to be looked at. Because the fossils are going in different directions it means that they are preserved in situ where they lived. After looking at papers about similar animals a paper from China that describes some very similar algae from the same time period was found. Everything that has been concluded about this animal is in line with the fact that it could be an animal.

I was born in Riverside California in 2000. I have lived in Riverside all my life except for a year when I lived in Boston. I went to Pachappa Elementary and I currently attend the Riverside STEM academy. I swim competitively with Riverside

Aquatics and I love to surf. I founded the RSA fish Club and I want to be a marine Biologist when I grow up. Both my parents are paleontologists and every summer since the year I was born I have traveled to Australia with my mom.

Returning again to the IGS are Sanjita Gowda and Reysha Patel with their project on water quality in Sycamore Canyon Creek in Riverside (Thom Deane's two part IGS talk assisted in their work.)

This experiment was conducted to determine the effect of urban runoff on the water quality of Sycamore Canyon Creek. If the tests of various water quality components indicate that urbanization has affected the water quality of Sycamore Canyon Creek, then the concentration of these particles will increase as they flow throughout Riverside. On June 21 2012, November 20, 2012, and December 28 2012 water samples were taken from seven sites along the Sycamore Canyon Creek. These sites were two tributaries on the upper reach of the creek, the lower end of the canyon, the middle of the Canyon Crest Golf Course, the middle of Victoria Golf Course, the concrete ditch at Andulka Park, and the middle of Riverside Community College. We tested for dissolved oxygen, carbon dioxide, pH, total dissolved solids, and temperature on site. After collecting water samples we tested for nitrate, nitrite, phosphate, total hardness, alkalinity, temperature, coliform, ammonia, chloride, and salinity and recorded data. Titration, VACUette kits, and electrode meters were used. The results collected were scattered, indicating that other variables also affected the water quality of Sycamore Canyon Creek. A major contributor to the ammonia, nitrite, nitrate, and coliform levels in the creek was the Perris Valley Pipeline. The approximate 6.5 mile/8-foot diameter Perris Valley Pipeline was recently constructed to transmit Metropolitan Water District water from a facility located near the Oleander Ave intersection to the Henry J. Mills Water Treatment Plant located within the Orange Crest area of Riverside, CA. When the excess groundwater from the septic tanks was intercepted by the trench, it started to flow eastward into Moreno Valley and towards the Perris Valley Pipeline. To prevent this, a horizontal well was placed to drain effluent from the septic tanks on Gem St. into Sycamore Canyon Creek. The results collected were scattered, indicating that other variables also affected the water quality of Sycamore Canyon Creek.

My name is Sanjita Gowda and I am currently a sophomore at Martin Luther King High School. This year I conducted an experiment with my partner , about the water quality of Sycamore Canyon Creek. My partner and I received a Gold Medal at the Regional Science Fair and advanced to the State Science Fair. Unfortunately, we did not win at state, but it was a great experience for us! Along with participating in science fair, I am also involved in tennis, and DECA, which is a business/entrepreneurship club at my school.

My name is Reysha Patel and I am a sophomore at King High School. On campus I participate in many clubs and activities, such as DECA and Science Fair. This was my first year participating in Science Fair and my partner, Sanjita, and I were lucky enough to make it all the way to the State Science Fair. Our project is about the effects of urbanization on Sycamore Canyon Creek.