

Scientist explores worlds past and present

By: Victoria Paterson | Posted: Wednesday, Apr 09, 2014 06:00 am



HE LIKES DIRT – J.P. Zonneveld doesn't shy away from the muck at Willapa Bay, Wash. during a group expedition to sample modern mudflats to understand how animals rework sediment in intertidal successions. Zonneveld says field work is one of the most enjoyable aspects of his work as a professor of earth sciences.

John-Paul Zonneveld is a man who hates to be bored.

The 47-year-old scientist can't stand waiting in line and hauls his book or laptop everywhere in case he finds himself with five idle minutes. It's part of the reason why he loves field work.

"There's always something to occupy my brain," Zonneveld says of his field experiences.

Zonneveld is a mixed research and teaching associate professor in earth and atmospheric sciences at the University of Alberta. It's tough for him to turn his brain off – he's just finishing up a paper that was inspired by his observations while on vacation with his family on Vancouver Island.

An expert in the fields of sedimentology, paleoecology and invertebrate ichnology (ichnology is the study of tracks and traces), Zonneveld likes to buck the trend when it comes to what he studies.

"I gravitate towards stuff no one else works on," Zonneveld said, noting that's why he doesn't work on dinosaurs in Alberta – they're too popular.

"I want frontier," he said.

So he likes to work in northern B.C. researching the Triassic period.

That fear of boredom and drive to learn has taken Zonneveld travelling around the world, something he dreamed of while growing up in Ontario in a strict religious community, where the expectation was he would stay and take over his dad's business of chicken farming.

"Personally I found it stifling," he said.

So he read books, especially about Africa.

"I had to go travel, I was going to see places. So I went into a science that allows for an awful lot of travel in the end."

Inauspicious beginnings

That Zonneveld would end up a respected scientist in his field wasn't a foregone conclusion. He said his high school marks were "substandard" though he managed to get into Calvin College in Grand Rapids, Mich.

During the last summer of his undergraduate degree, during which he did a thesis on petrology, he got a job working with a paleontologist in the field in Wyoming and fell in love with that field.

However, he went to work after school for an environmental consulting company in Mississauga. The young Zonneveld found out that environmental consulting largely meant helping cover clients' exposed "back ends" and became jaded.

He decided life was too short to spend doing something he hated. So he convinced a professor at Michigan State University to take him on as a graduate student despite his "lacklustre" grades.

"He was a tough son of a gun," Zonneveld said of his supervisor, who made him write and rewrite his thesis drafts.

Those rewrites, however, helped Zonneveld learn to be a good communicator, a skill he said is crucial.

Unlike the marks he earned for his high school and undergraduate studies, Zonneveld did well with his

masters and got a scholarship to do his doctorate at the University of Alberta.

After he completed his doctorate, he went to work at the Geological Survey of Canada. He wanted to be able to dictate what he worked on, however, so he ultimately ended up getting a position back at the University of Alberta, which brought him and his young family to St. Albert, where his wife Shima is from.

Dirty hands

As part of his work at the University of Alberta, Zonneveld works with students at the undergraduate and graduate levels, who he appreciates because they bring different perspectives.

And he loves working with students at the elementary school level, saying kids are natural scientists who don't have adults' presuppositions to apply to their logic.

His professorial duties include taking second-year undergraduate students out into the field to get their hands dirty.

Field work is an integral part of his branch of science, and Zonneveld said those who want to do it need to be prepared to deal with everything.

That can include the failure of a boat motor, spending a night out in the bush or eating unfamiliar foods in foreign countries.

"I had a little bit of a mishap in a helicopter a few years ago," he said of an incident near the B.C.-Alberta border in the mountains.

That mishap was the helicopter landing upside down after getting caught in a bad downdraft that threw the aircraft sideways. It hit a ridge, breaking a landing strut and the rotor, then bounced a few times before stopping.

One person was seriously hurt but the rest, including Zonneveld, were only bruised. They were able to call out for rescue via cellphone.

"In the end you have to have a personality that's prepared to deal with everything that happens," Zonneveld said.

He's worked in several parts of the world, and is heading to Borneo and Sumatra later this year for more field work, the first time Zonneveld will work in southeast Asia.

After falling in love with Africa as a child, he has been there as an adult. Once he travelled with his father and they climbed Kilimanjaro – in a blizzard.

"It was cold," was Zonneveld's comment on the experience.

While there was a time when Zonneveld might have spent more nights a year on the ground than he did in a bed, he now is able to pick and choose his destinations and projects. This is influenced in part because Zonneveld misses his two daughters "like crazy" when he's away from them.

"Those little girls need me now," he said.

Big picture

Zonneveld is a big picture sort of person, which is why he likes his areas of expertise.

"It's a fun set of sciences to be in, it's a natural association. I'm really jack of all trades in the end," Zonneveld said.

Anyone who deals with ecological systems needs to be grounded in both physical and biological environments.

"I like to pull it all together in the end," Zonneveld said.

Zonneveld's work has ranged from his Triassic examinations in B.C. to trying to define boundaries between geological time periods in Sicily along with Italian colleagues.

Zonneveld has morphed from a "goofy" undergraduate into a "fabulous scientist," says Greg Gunnell, the director of fossil primates at the Duke Lemur Center.

"When I first met him, I thought 'Nice kid, never going to make it,'" Gunnell said.

Gunnell met Zonneveld during the summer the latter spent in Wyoming, an experience that ultimately changed the direction of Zonneveld's career.

Gunnell went on to be an unofficial part of Zonneveld's masters thesis committee and every few years they still go back to Wyoming to work together on various projects.

The lack of focus Gunnell saw in Zonneveld as an undergraduate is gone.

"I think somewhere along the line he decided I like what I'm doing and I'm going to start grinding on this," he said.

"He's unbelievably dedicated to his science and his family."