Dr. Einstein held that what you see depends on where you stand, and though he was not thinking of biology, it is true for that science just as well as for physics. You ought to be wondering by now how do Dan and Neal collaborate on a paper for the *Dashing Diplodocus* when Dan likes animals that are still with us and Neal is willing to investigate animals where the messy soft parts are gone.

In the 1930s, paleontologists from the Smithsonian found a fabulous fossil site in Idaho. Now called the Hagerman Fossil Beds National Monument, this site is famous for fossil horses and a few peccaries buried by a 3.5 million-year-old volcanic ash fall and naturally the paleontologists described every new species they could justify. Everybody wants to name new species because that is the way you get fame, fortune, or maybe just your name in print. For example, if he found a new oyster that was sufficiently different from all others, Neal could name it, “*Ostrea gigas Inda 2003*” after his charming wife. Animals belong to the same species if they can reproduce. Obviously, a biologist studying living creatures has a much harder time than a geologist because he can actually test for interbreeding and do molecular genetics. If paleontologists found fossils of all the modern dog-critters, they would probably assign the extreme size ranges to different species; whereas biologists would do a genetic examination of the living varieties and find that they all belong to the same species. The paleo hall has a disputed genus on display right now, *Protoavis*. Look for an ugly fluffy pigeon-sized bird mounted next to *Deinonychus*. A Texas Tech professor, Dr. Chatterjee, proposed this as the first bird but could never convince everyone else of it. Lets get back on the subject……

The paleontologists wrote up the new species of peccary, called it *Catagonus wagneri*, and published a rather sensational artist’s drawing of the animal as a major predator. See the photograph of this killer pig of the plains. The people were probably impressed by the large canines, but they should have known better. The literature is full of bad reconstructions of fossils by early geologists. For example, the famous geologist Cope put the head on the wrong end of a plesiosaur.
Peccaries have had an interesting evolutionary history. They are strictly a New World family with the oldest ones are 37 million years old (Eocene age). They have been found all across North America in rocks that are 20 million years old (Miocene age). When the Panamanian land bridge formed (2.3 million years ago) they migrated to South America. This was extremely fortunate for the family because all the North American forms subsequently died out. The ones roaming south Texas are a reintroduction from South America as recent as 400 years ago.

Dan will tell you at some length, particularly during Guild socials, why a peccary is not a pig because he studied them when he lived in South America. A peccary has a snout like a pig, eats like a pig, smells like a pig, and has hooves like a pig, but is not a pig. You would have to be very determined to find the differences because they are mostly internal – scent gland at the tail, reduced liver, fused foot and leg bones, multi-chambered stomach, and interlocked upper and lower canines. Real pigs, like the African warthog have their upper canines curving out and up, making them very dangerous. Very large populations of collared peccaries in west and south Texas live on prickly pear and other spiny plants – no wonder they steal food from campsites in Big Bend. We have two collared peccaries (*Tayassu tajacu*, commonly known as Javelina around these here parts on display in Texas wildlife.

So, where are we? In 1930, an Argentinian paleontologist named Rusconi found a 3.5 million-year-old peccary in Idaho. In the early 1970s, Ralph Wetzel, a true scholar and gentleman hailing from the University of Connecticut, found the same animal on the hoof in some really thick scrub brush in the Paraguayan Chaco of South America, where Dan did his thesis work.
One reference calls them “pigs from green hell” because they live in impenetrable scrub forests. In fact, “Green Hell” the affectionate term for the Chaco, was coined in the 1930s by Paraguayan soldiers during the Trans-Chaco war with Bolivia – Paraguay lost approximately 90% of its male population in that war, but that is another story……. Back to Wetzel - he described *Catagonus wagneri*, the Chacoan or giant peccary (known locally as “Taguá” by the Guaraní Indians), as a living species, astonishing mammalogists and paleontologists alike throughout the world. As you can see from the picture, Chacoan peccaries have much longer dorsal hair than the collared peccaries in Texas. This dorsal hair can be raised so that the peccary appears larger to predators. Far from being killer pigs, they have become quite shy, probably because of aggressive hunting.

![Photo by D.M. Brooks](image)

Taguá are endangered by habitat destruction, cattle raising, and hunting. In the 1970s, hoof and mouth disease introduced to the Chaco by domestic cattle really did a number on the peccaries, severely reducing populations. Unfortunately, the already limited populations of this population also possess the tastiest flesh of all animals in the Chaco and therefore are heavily hunted. The social dynamics of these peccaries made it even more likely for whole herds to be destroyed. Let’s go back in time to the ancestors of peccaries that arose in the deepest, darkest, most impenetrable parts of Amazonian forest. Living on the ground among thick vegetation, peccaries developed olfactory and auditory cues for communication with one-another rather than
visual communication (it’s hard to see among all those dang plants!). Consequently, the herds became tight socially and peccaries today are no different. This tight herd cohesion ultimately led to the dramatic decline of the Chacoan peccary. When a hunter shoots a Taguá, the rest of the herd scatters, only to return minutes later to see what happened to the fallen individual. The hunter will then shoot a couple more animals, the herd will scatter, then return again and again until the entire herd is eliminated.

So…… Dan was exposed to poaching of a highly endangered species as a young, budding scientist (now you know why he’s so jaded!). In fact, the last time he saw wild Taguá was 31 December 1989 – the last day of the decade before the 90s, when many forms of species went extinct………

In conclusion, if you want to be famous, find animals with a big gap between fossil and living versions. The 3.5 million year gap for this peccary is good, but there is a 70 million year gap between fossil and living for the primitive fish the Coelacanth. The record is held by Dr. Dilly, a marine biologist who found modern graptolites, 280 million years after the most recent fossil, and he did it in knee-deep water on the beach of the resort in Belize! Keep looking………..

Read more!

Hagerman Fossil Beds peccaries: http://www.nps.gov/hafo/crittercorner/platygon.htm
Modern peccaries: http://animaldiversity.ummz.umich.edu/accounts/catagonus/c._wagneri$narrative.html

Or if you are really serious see: