

A man, Jay Villemarette, stands in a museum filled with animal skeletons. He is wearing a dark t-shirt with a skull logo and a light-colored jacket. He is holding a large animal skeleton, possibly a bear or a large dog, which is mounted on a black metal stand. The museum walls are covered with various animal skulls and skeletons, including a large whale skeleton in the background. The lighting is bright, highlighting the white bones against the dark background.

Jay Villemarette is the founder of Skulls Unlimited International, Inc.

# BONE *cleaner*

**I**n this day and age, there are all sorts of collectors. Men and women across the globe collect personal treasures ranging anywhere from stamps and dolls, to cars and art. In March 2007, Jay Villemarette unearthed one of his own largest collection pieces to date — the skeleton of a 55-foot fin whale.

Known as a true bone collector, Villemarette's day job is anything but nice and neat. His prized fin whale skeleton is an estimated 60 tons of decaying flesh and bone. It will be put through a rigorous cleaning process at his Oklahoma-based company, Skulls Unlimited International, Inc., in order to be display-ready for his Museum of Osteology ([www.museumofosteology.org](http://www.museumofosteology.org)), which is projected to open in late 2007.

Started in 1986, Skulls Unlimited has celebrated 20 years of providing real and replica skulls and skeletons to educational facilities and to some of the most prestigious museums around the world. Villemarette's skull cleaning

company has become world-renowned, and remains the largest provider of osteological specimens today.

Villemarette was 7 years old when he found his first dog skull and discovered he had a fascination for bones. Encouraged by his father, he continued to collect skulls that he came across for many years. Through trial and error, the two discovered a skull cleaning process that would enable Villemarette to make a side income from this new hobby. Four years after graduating from high school, Villemarette's small home-based business began to evolve into a successful retail company.

For the past several years, Skulls Unlimited has not only attracted thousands of buyers, but a media frenzy as well. This has resulted in special features on some of today's most popular television shows. Villemarette has appeared on local news reports, Discovery Channel's *Dirty Jobs* and *Ripley's Believe It or Not!*®

Once again, the company worked with the Discovery Channel to document the excavation of the fin whale. It's not the media's fascination with bones that keeps them coming back, however. It's what happens to the freshly-collected skeletons after they've arrived at Skulls Unlimited that has spectators cringing with curiosity.

The process of skull cleaning isn't exactly most people's cup of tea. As for Villemarette's employees, they have to want to work there.

"If you need a job, this is not where some people would prefer to be — especially in the workshop," he explained.

Once a skeleton arrives, usually with skin, hair and "insides" still in one piece, Villemarette's team works to cleanse the bones, cutting and stripping the carcass down. Whereas taxidermists want to clean the bones out, skull cleaners keep only the bones, and the rest is thrown out.

For the larger batches of carcasses, a boiling vat of water will do the trick, but there's no easier way than doing it by hand. Villemarette figures an employee has to be made of stone not to be affected by the stench.

The second step to obtaining a clean bone involves the use of beetles, which is a method that has been used by museums for years. Skulls Unlimited is home to millions of Dermestid beetles, the majority of which are descendants of the first few beetles Villemarette collected as a young man. These tiny insects remove the remaining tissue from the bones within a total of 24 to 48 hours, which prepares the specimens for the final step in the cleaning process. Once they are fully cleansed by the beetles, the bones are placed in a vat of hydrogen peroxide which bleaches them white. This results in the final product.

Skulls and bones are sent from all over the world to be cleaned and assembled by Skulls Unlimited. The company does not condone poaching, so the specimens come from an array of natural or predator deaths, roadkill or legal hunting. Skulls Unlimited has cleaned the skeletons of animals as small as the shrew, to as large as the humpback whale. The company even has a collection of human skulls. These remains, from ancient graves found in Asia, would cost a buyer roughly between \$800 and \$900 to take home.

While Villemarette may have an expert team working behind him, he still enjoys getting his hands dirty.

"I'm not much of one for being behind my desk. My favorite part is being out there doing the work. Overseeing the company, itself, is a full-time job," Villemarette explained.

It may not be the prettiest job, and it may just be one of the smelliest. In two decades, Villemarette has only "lost his lunch" twice.

Though the majority of the skeletons that come through Skulls Unlimited are sold for educational purposes or to supply museums, Villemarette has taken these past 20 years to slowly create his ultimate bone collection. His new Museum of Osteology will house more than 5,000 bones and skeletons representing over 1,000 different species. The museum will offer educational tours, classrooms with hands-on activities, as well as self-guided tours.

[www.skullsunlimited.com](http://www.skullsunlimited.com)  
[www.myspace.com/skullsunlimited](http://www.myspace.com/skullsunlimited)  
 1.800.659.7585



**Mike Rowe, host of Discovery Channel's Dirty Jobs, displays a human skull.**

◀ **One of thousands of skeletons on hand at Skulls Unlimited, this monster gets a "mouthful" of company owner Jay Villemarette.**



**Hundreds of Dermestid beetles are "on the job" cleaning tissue from bones.**



◀ **Skulls Unlimited employees work to reconstruct "Fred," a mastodon skeleton discovered in Indiana. The mastodon was a prehistoric, elephant-like animal that first appeared in North America almost 4 million years ago and became extinct about 10,000 years ago.**