

Skulls head nifty Academy of Sciences show

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COURTESY PHOTO

The entrance to the California Academy of Sciences exhibition "Skulls" showcases a skull of an African bull elephant.

As if it weren't enough to cover a 90-foot-long wall with 431 sea lion skulls, the new California Academy of Sciences exhibit has a trick up its sleeve.

Only 423 skulls are those of sea lions. Eight are impostors — skulls of a wolf, a walrus and others. Even though a press of a button will produce the sound of the animal associated with the skull, it takes a careful visual search to spot the pretender.

The point is "to have fun while observing and learning," director of exhibits Scott Moran says about the exhibit, simply called "Skulls."

Moran admits the subject is unusual and somewhat forbidding: “When people see a skull, their first thought is often about death,” he says, “but the skulls in this exhibit really tell a story about life. They help us understand the living world.”

Examination of skulls and skeletons, academy scientists say, yields vital information not only about animals’ history and their evolution, but also how forces such as pollution and disease have an impact on them.

Moe Flannery and Sue Pemberton of the Ornithology and Mammalogy Department introduce a ghoulish but amazingly efficient system to clean and prepare skulls: flesh-eating beetles. Using live and video examples, the show reveals how the beetles leave bones clean in a matter of days. With a three-month life cycle and active reproduction, Pemberton says, beetle colonies provide low-maintenance, virtually permanent machinery in skull preparation.

The show also describes work by the legendary Ray Bandar, who spent more than six decades collecting, cleaning (apparently without beetles) and preparing many of the skulls on display (in addition to 7,000 skulls in academy storage). At a preview event for the exhibit, Bandar recalled with relish how police would question him at work on a Santa Cruz beach, where he was busy dismantling sea lions, because they had received calls about “a homeless man cutting up something dead.”

Humans are represented in “Skulls,” too, including the only existing copy of the original skull of a 3-year-old *Australopithecus afarensis*, also known as “Lucy’s child.” The fossilized remains of the 3.3 million-year-old child were discovered by the academy’s senior anthropology curator, Zeresenay Alemseged, in his native Ethiopia in 2000.

The skull is placed between skulls of a chimpanzee and a modern *Homo sapiens*. The arrangement reveals similarities and differences between the species — how they walked, ate and learned. Alemseged points to one fun fact: Only modern humans have chins.

<http://www.sfoxaminer.com/sanfrancisco/skulls-head-nifty-academy-of-sciences-show/Content?oid=2805433>