Carolus Linneas,
the Father of Modern Taxonomy

Have you ever been overwhelmed by a pile of stuff? I have. Often, after a big family gathering, my kitchen is a mess: my sink is filled with crusty plates, dirty silverware, mixing bowls; the stovetop is covered with crusty pans, goopy spoons, open spice jars; the floor is littered with stray potato peelings, scraps of brown, burned buttered – HOLD ON: This is starting to sound like a Shel Silverstein poem --

and so, it piled up to the ceilings
Coffee grounds, potato peelings
Brown bananas, rotten peas, chunks of sour cottage cheese
That filled the can and covered the floor, cracked the window and blocked the door…

Because I relate to poor Sarah Cynthia Silvia Stout, I imagine how tough it would be for a scientist to study living organisms. Just think of it: millions and millions of living organisms inhabit planet earth! Without a system to organize them, biologists would have a confusing job, indeed.

Thankfully, one guy fixed that problem. Carolus Linneas, who was a biologist, a professor, and a doctor, worked to make studying biology a lot easier. Linneas lived in Sweden from 1707 – 1778. He first wanted to be a priest, but he didn't study well enough for that. He loved botany, though, and had great teachers who encouraged him to go to college and study what he loved.

Linneas is known as "the father of modern taxonomy." Back in ancient times all living things had been grouped into two big categories: plants and animals. Linneas added a third "kingdom" called "stones" into which he placed all minerals. Later, he further divided living things into a more precise hierarchical system.

A hierarchical system begins with general similarities between living organisms and then creates divisions within those. For example, Kingdom Animalia (animals) is further divided into smaller groups called "phyla". We have Phylum Arthropoda (animals which do not have backbones but do have jointed feet) and Phylum Chordata (animals which do have backbones) and Phylum Mollusca (animals which have a shell, a mantle, and a "foot", such as snails).

Carolus Linneas's biggest contribution to this system of taxonomy is "binomial nomenclature", which means "two-part name". Each living organism on our planet is classified by a hierarchical system and named with binomial nomenclature. How about some examples?

A lion belongs to Kingdom Animalia, Phylum Chordata, Class Mammalia, Order Carnivora, Family Felidae, Genus Panthera, Species Leo. See below –

LION

Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Carnivora
Family: Felidae
Genus: panthera
Species: Leo

(Next week we will discuss the hierarchical system in more detail.)

Using Linneas's binomial nomenclature system, zoologists can shorten the lion's classification using the last two names, the genus and the species: *panthera leo*. (You may see this name abbreviated as *P. leo.*)

Because of Latin and Linneas's binomial nomenclature, biologists all over the world, who speak different languages, can know what another biologist is talking about when she or he uses the proper binomial nomenclature to call attention to a lion. Not a tiger (*panthera tigris*) or a puma (*panthera pumas)*, but a *panthera leo* – which has lion-ish characteristics, not tiger-ish characteristics.

Carolus Linneas, who is most famous for taxonomy, had other jobs throughout his lifetime. He was a doctor in Stockholm, Sweden, for a couple of years. He was the director of a zoo. He taught at universities. In fact, he was a terrific teacher, and frequently sent his favorite students on field trips to collect new specimens for study. (Some of them, unfortunately, died while on their voyages).

Near the end of his life, Linneas was appointed as chief royal physician and knighted by the King of Sweden in 1758. After being knighted, he chose a new name: Carl von Linné. So, if you see reference to "Carl von Linné", you will know he is the same person as Carolus Linneas.

Linneas died on January 19, 1787, after an illness. He was so famous that in Sweden, several stamps and paper money have had his picture on them. Statues of Linneas can be found all over the world. And even a crater on our moon is named for him, Crater Linné!