

Notes from a Rogue entomologist**Louis Gentner and the naming of species: More than a fritillary**

BY RICHARD J. HILTON

Louis Gentner was no stranger to finding and naming new species. From 1930 to 1962, he was the entomologist at Oregon State University's (OSU) Southern Oregon Experiment Station (now part of the Southern Oregon Research & Extension Center). Not only did Louis (pronounced "Louie") study agricultural pests and investigate control measures as part of his job, he was also a prodigious insect collector and taxonomist. By my count, Louis has eight insect species named after him, and he also named at least seven other species of insects. Locally, however, the Gentner name is recognized primarily due to the Gentner's fritillary.

The story of the how Louis Gentner and his daughters collected one of our local wildflowers and then recognized it was an unusual and unique species is a great example of biological diversity and discovery right in our backyard. It also serves as an illustration of taxonomy in action. Taxonomy, also referred to as systematics, is the branch of biology that deals with identifying and naming species, attempting to create an orderly system to classify the vast array of living things. You might think that the definition of what constitutes a valid species would have been worked out by now, but biologists are still arguing over the precise details.

The simple definition of a species is a population of individuals that can successfully interbreed and reproduce. Thus, horses and donkeys are in the same genus, *Equus*, but are considered separate species because when they interbreed, their offspring (mules) are sterile. The idea of

having a unique genus-species name for all the different types of living things dates back to the 1750s and was initiated by a Swedish botanist/naturalist, Linnaeus. The fact that this system is still operating after 250 years with the naming of well over a million and a half species is a testament to its utility and versatility.

This wildflower, ...found only in southwest Oregon and two locations in northern California, is... considered endangered...

Nevertheless, the first species of insect to bear the Gentner name illustrates how mistakes are made and corrected in the world of taxonomy. The two most common mistakes that occur in the naming of species are "synonyms," having multiple names for a single species, and "homonyms," having one name refer to more than one species. As it happened, a species originally named by Louis Gentner resulted in a homonym.

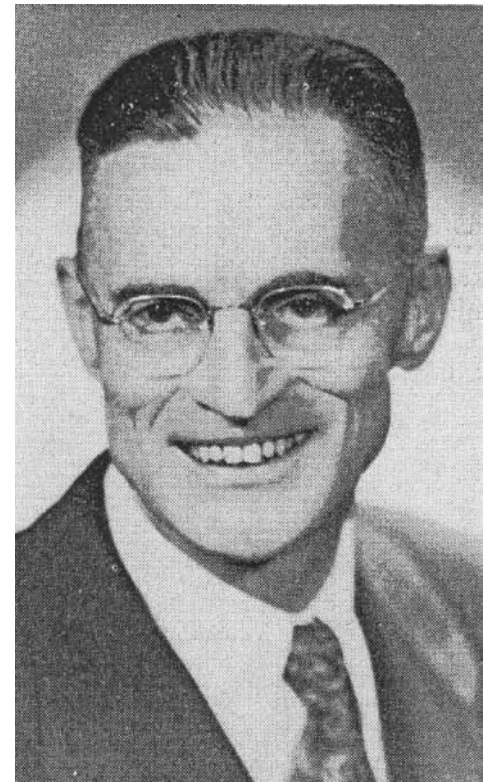
Louis's specialty was flea beetles, particularly those in the genus

Chaetocnema. In 1928, through studying flea beetles collected by himself and others, he identified and described a new species, naming it *Chaetocnema parvula*. "Parvula" means small in Latin, and since flea beetles are small to begin with, this species was quite small. Years later, in 1940, a Hungarian researcher studying the same genus discovered that another species of flea beetle found in Ceylon had already been named *Chaetocnema parvula*. Communication being what it was in the first half of the last century, it is no surprise that Louis was unaware that he had chosen a name that had already been claimed. The rules of nomenclature are heavily based on precedence, so the oldest name stands and the newer name has to be changed. The researcher who unearthed this problem gets to come up with a new name. In this case the species that Louis had identified was renamed *Chaetocnema gentneri*, recognizing Louis' initial work.

Altogether, I found a total of 14 species of flea beetles that Louis described and named, seven of which are still considered valid species names. Louis's final scholarly work on taxonomy was a description of all the species of *Chaetocnema* north of Mexico, 36 species in all. This work served as his PhD thesis, and Louis was awarded his doctoral degree from OSU in 1953 when he was 61 years old. In 1979, the year before he passed away, Louis dispersed his personal collection of insects, including 50,000 specimens representing 1,000 different species, most of which were given to the Smithsonian's National Museum of Natural History.

In addition to being an authority on flea beetles, Louis was simply an incredible insect collector and he was alert enough to know when he collected something that was distinct or unusual. New species are often named after the person who first collects them, which is why there are at least eight insect species named *gentneri*. While Louis was primarily a coleopterist, or beetle expert, only four of the species named for him are beetles: one weevil, two click beetles, and the aforementioned flea beetle. The other four species consist of two aphids and two fly species.

Louis Gentner was a keen observer



OSU entomologist Louis Gentner has eight insect species named after him. In this 1957 photo, he was Chairman, Pacific Branch of the Entomological Society of America.

of nature and it was no accident that he recognized the fritillary his daughter collected as being distinct from the fritillaries that are most often observed. After the Gentner family searched and found more specimens, Louis passed them on to the botanist at Oregon State University, who determined that they represented an entirely new species and gave it the name *Fritillaria gentneri*. This wildflower, which is found only in southwest Oregon and two locations in northern California, is currently considered endangered due to human development and competition from exotic weeds. But the Gentner legacy goes beyond our native fritillary and extends to flies and aphids and flea beetles. Louis cast a wide net, and in doing so he helped to put in place a few new pieces of the puzzle that is life on earth.

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Photos, left to right: *Fritillaria gentneri*; flea beetle named by Louis Gentner.

**Keep leaves out of the burn pile**

Leaf exchange program—Jackson County Air Quality: The Leaf Exchange Program gives residents an alternative to burning leaves, which contributes to particulate matter and other pollutants in the air. Jackson County Air Quality compiles a contact list of people who have leaves to dispose of, and another list of those who are looking for leaves to make

compost. Leaf donors and leaf recipients can then contact each other to arrange for pick up and delivery of the leaves. To add your name to the list, contact Jackson County Air Quality at 541-774-8207.

Compost in your own backyard: Year-round. Composting is easy, inexpensive and fun. Watch your leaves

and grass clippings become a useful soil amendment for your garden, lawn or houseplants. Abundant instructions are available on the Internet, or contact Jackson County Recycling Partnership, www.jcrecycle.org. 541-494-5488.

Rogue Disposal Transfer Station—Free leaf drop-off: 8001 Table Rock

Road, drop off leaves and other green waste free of charge. Bags, cans and other receptacles must be emptied in the designated area; do not mix them with green waste. Hours: Monday - Friday 8 am - 4 pm, Saturday 7 am - 4 pm, closed Sundays. Contact Rogue Disposal Transfer Station at 541-779-4161 or www.roguedisposal.com.

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