

## Science News Online

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### A Fly Called *Iyaiyai*

#### And other true stories of scientific name-calling

**Susan Milius**

Neal Evenhuis takes it rather well when a reporter phones his office at the Bishop Museum in Honolulu and asks, What *were* you thinking? Some of the scientific names he's invented . . . Well, . . . Did he do those things on purpose?



The roseate spoonbill, *Ajaia ajaja*, did not get its name from a cat pawing a keyboard. A 1648 report of the bird in Brazil gave the Tupi people's name for it as *ajaja*, and the later binomial system essentially doubled it.  
PhotoDisc

Most of the time, Evenhuis comes across as an eminent, sane scientist. He's spent years mapping out the family trees and describing new species of flies, and he's published such landmark works as a catalog of 5,100 fossil species. He's officially named more than 300 kinds of flies, and most of the terms sound respectably unintelligible to the uninitiated. Several hours before fielding the phone call about his intentions, Evenhuis heard that he had been elected to the international commission overseeing scientific names for all of zoology.

So, what did the accomplished taxonomist have in mind when he chose *Dissop* as the name for a genus of a hard-to-see fossil with the species name *irae*? Disap-pear-ee?

And what about the genus called *Iyaiyai*, as in the lamenting trills of a mariachi song or the cry that goes with thumping a hand against one's forehead?

Evenhuis has committed other merriments, too, and, yes, he says he intended all of them. Although he practices world-class systematics, he advocates lightening up every once in a while. What's more, he's not alone.

Despite the precision of this science?these people know how many hairs grow on a fly's legs and how to say *white* nine ways in Latin?taxonomists preserve a tradition of sly wordplay. Evenhuis rattles off two Web addresses, in addition to his own, that document whimsical nomenclature.

Some names just sound funny: *Zaa*, *Mops mops*, *Bla nini*, and *Awuka spazzola*. Some names evoke celebrities, from Ludwig van Beethoven and Arthur Conan Doyle to Frank Zappa and the Teenage Mutant Ninja Turtles, and some make eye-crossingly awful puns.

Some, including many created by renowned scientists, get so rambunctious that they can't appear in a family magazine, and the humor behind others is hard to classify. Fly specialist David McAlpine of the Australian Museum in Sydney, for example, named a genus *This*. A picture of one of its species hangs on his office door with the instruction, "Look at *This*!"

To show how a taxonomist can end up doing something as odd as that, Evenhuis describes his first excursion on the wild side of nomenclature. It all started, he says, when he fell in with a bunch of wry entomologists.

### Champions of taxonomy

In the early 1980s, Evenhuis once or twice a year visited the Smithsonian Institution's superb collection of flies in Washington, D.C. Before the workday started, resident entomologists and their guests swarmed around coffee in one of the labs. "I was in awe in the midst of such champions of taxonomy," Evenhuis remembers.

During the start-up caffeination, Evenhuis learned about the species *Verae peculya* and *Heerz lukenatcha*. At the Smithsonian, Arnold Menke had added the new species name *eyvae*, pronounced "eye-vee," to the genus *Pison*, and beetle maven Terry Erwin had enlarged the genus *Agra* with the species *phobia* and *vation*. All comply with at least the letter of the law of the International Commission on Zoological Nomenclature and had been accepted as valid arthropod species names.

"I came away from those morning coffees knowing that I just had to find a name to compete and be accepted into that club," Evenhuis recalls.

At that time, Evenhuis was studying a group of so-called bee flies and had found several new species, most in the genus *Phthiria*. He recalls, "I thought to myself, 'What species name would go well with a genus like that?'"

Evenhuis was then, and still is, sticking to the tradition of two-word names established in the 18th century by Carl Linnaeus, who actually came up with some doosies himself. The Swedish botanist-physician arranged the living world in categories that branched into smaller ones, which likewise branched repeatedly. In the last of Linnaeus' branchings, the so-called genera split into the most basic identification of organisms, the species.

"Most names are descriptive, and a big chunk of the rest of them are honorific," explains bee specialist Doug Yanega of the University of California, Riverside. Even within those categories, though, there's room for inventiveness.

In creating descriptive names for some species, Linnaeus "was a prurient guy," opines Yanega, who created one of the online collections of nomenclatorial high jinks. Linnaeus noted similarities between plant parts and human anatomy when he named the pink-flowered butterfly pea *Clitoria mariana* and a stinkhorn species *Phallus*. The species name *impudicus* means shameless. "If anything, we've toned down since then," Yanega says.

Even a G-rated description can go too far. In the 1920s, amphipod researcher Benedykt Dybowski crowded so many descriptors together that his names stretched out for several dozen letters. Yanega translates Dybowski's polysyllabic horror *Gammaracanthuskytodermogammarus loricatobaicalensis* as "amphipod with hollow spines on its skin from Lake Baikal." Although the names did follow the rules, the commission finally decreed all Dybowski's names invalid because they proved so unwieldy.

Names that honor someone, real or imaginary, can still offer a little indirect description. Erwin named one of his legion of tropical beetles *Pericompsus bilbo* after the hero of *The Hobbit* (1937, J.R. Tolkien, G. Allen and Unwin). The name fits, he said, because the beetle is short, fat, and has hairy feet.

Both a fish and a tineid moth with fake headlike color patterns near the tail take their species name, *beeblebroxi*, from the intergalactic gadabout Zaphod Beeblebrox, who had two heads, in *The Hitchhiker's Guide to the Galaxy* (1980, Douglas Adams, Harmony Books).



The cactus genus *Hatiora* got its name as an anagram of the cactus genus *Hariota*.

M. E. Eaton/Smithsonian Institution

The bulk of honorary names commemorate the people who collected a vital specimen, mentored the describer, or otherwise earned the namer's affection. Two taxonomists named a moth species *bruneiregalis* after the Royal Brunei Airlines. Lichen taxonomist William R. Buck named a species *yahriqe* in honor of a graduate student who made a special 7-hour trip back to the field site to collect enough of the new species for the description.

The late Smithsonian scientist Harrison Dyar named a moth species *wellesca* after the woman he married in 1906. Perhaps it helped atone for his failure at the time to divorce his first wife, Zella, whose name he gave to another insect species in 1927. Evenhuis adds that the amateur entomologist B. Neumogen probably intended no insult when he named the insect genus *Dyaria*, pronounced with "ee-ay" at the end, after Dyar himself.

Other names were almost certainly intended as slights. Linnaeus coined *Commelina* after three members of the Dutch family Commelin, two of whom had prospered. The flowers unfold three petals, two large ones a pure sky blue and a third petal that's tiny, pale, and shriveled. The taxonomists who commemorated Henry Townes with *Townesilitus* were supposedly thinking pathologically.

Intent can be hard to determine though. Evenhuis defends as a clear compliment a fellow entomologist's decision to honor Gary Larson with the new species of owl louse *Strigiphilus garylsoni*. And when John Stocker, the former leader of Australia's Commonwealth Scientific and Industrial Research Organisation, learned that he had been honored with *Telanepsia stockeri*, the name given to a moth that eats koala dung, he issued a thank you of remarkable sportsmanship. Stocker welcomed association with "the celebrated Australian" and dismissed the excremental environment as just a familiar state for a public servant.

### Too far-fetched

When Evenhuis confronted the nomenclature possibilities for his bee fly, he focused on the pronunciation of *Phthiria*, or "theory-a." He toyed with the idea of *Phthiria gravitae* but decided the name really was too far-fetched.



This fly (shown without wings to reveal body patterns) in the genus *Phthiria* drove Neal Evenhuis to consider giving it the name *Phthiria gravitæ*.  
Evenhuis

However, he remembers, "I could justify the etymology of the species name for *relativitæ* by breaking it down to its Latin roots?'relating to life'." He decided in the early 1980s to name the species "in honor of life on Earth."

The international rules require that a taxonomist validate a new name by presenting it and certain basic information about the new species in a publication that will be available in public institutions. At the time Evenhuis was naming *Phthiria relativitæ*, the voluntary code of behavior in the nomenclature rules disparaged humorous names, so he realized that a vigilant journal might reject his choice.

In fact, one of Evenhuis' colleagues, Lee Goff, had just had a paper rejected by the *Journal of Medical Entomology* because he proposed naming a new chigger *Trombicula tgifi*. Goff next submitted his work to a Belgian journal, which did publish it. Goff suspected that the European reviewers hadn't recognized the American end-of-the-week expletive, TGIF.

Goff's maneuver inspired Evenhuis to submit his *Phthiria* paper to the Polish entomological journal *Polskie Pismo Entomologiczne*. "I thought it would be a miracle if anyone in the journal's editorial department would pronounce the name as we would in English," he says.

In the same paper, Evenhuis described the bee flies *Oligodranes humbug* and *Oligodranes zzyzxensis*. Those didn't worry him because he attributed them to California geography, Humbug Creek, and Zzyzx Springs, respectively.

Knowingly or not, the journal published his whimsies in 1984. "I was in heaven," Evenhuis says.

But his triumph proved short-lived. In 1986, Evenhuis reanalyzed the bee-fly group and found that *relativitæ* fits into a different genus. "Science should always be progressing," he intones, but progress had transformed his carefully crafted name into *Poecilognathus relativitæ*. "I was crushed," he notes.

Since then, he's consoled himself by assigning a happy discovery, a fly family, the name Serendipitæ, and his fly *Villa manillæ* has fared better than the lip-synching pop namesakes. The nomenclature commission's code of ethics no longer explicitly discourages humor that's not likely to give offense.

Evenhuis has even grown philosophical about *Phthiria*. He advises, "Bottom line: If you try to be funny with

names, be aware that someone with later science may confound your efforts. And that person may be yourself."

## Name Games

### Ersatz classicism

*Aegrotocatellus* Adrain and Edgecombe, 1995 (trilobite). Literally "sick puppy."

*Amblyoproctus boondocksius* Ratcliffe, 1988 (beetle). Not one of the scarabs next door.

*Eucritta melanolimnetes* Clark, 1998 (fossil amphibian). Loosely "creature from the black lagoon."

*Chloridops regiskongi* Hames and Olson, 1991 (Hawaiian finch). Described as "a real King Kong" before it went extinct.

*Dorcus titan* *titanus* Boisduval, 1835 (stag beetle). Perhaps "titanic dork"?

*Geoballus caputalbus* Crabill, 1969 (millipede). Named after its collectors, George Ball and Donald Whitehead, a.k.a. "head-white."

*Stupidogobius* Aurich, 1938 (fish).

### Unhooked on phonics

*Arfia* Van Valen, 1965 (fossil hyaenodont resembling a dog).

*Blaps* Fabricius, 1775 (darkling beetle).

*Boops* Gronow, 1854 (porgy fish).

*Cedusa medusa* McAtee, 1924 (bug).

*Eucosma bobana*, *E. cocana*, *E. dodana*, *E. fofana* Kearfoot, 1907 (olethreutid moths). And there are more.

*Trombicula doremi* and *T. fasola* Brennan and Beck, 1955 (chiggers).

*Zyx* Smit, 1953 (flea).

### Extremes

*Aa* Baker, 1940 (mollusk). First genus name alphabetically, so far.

*Aaadonta* Solem, 1976 (snail). Second place in alphabet.

*Aegilops* Hall, 1850 (mollusk). Longest word with all letters in alphabetical order.

*Gammaracanthuskytodermogammarus loricatobaicalensis* Dybowski, 1926 (amphipod). The longest binomial, at least before it was internationally banned.

### Honors list

*Avalanchurus lennoni*, *Avalanchurus starri*, and *Struszia mccartneyi* Edgecombe and Chatterton, 1993 (trilobites). Beatles turn into real arthropods.

*Arcticalymene viciousi*, *A. rotteni*, *A. jonesi*, *A. cooki*, and *A. matlocki* Adrain and Edgecombe, 1997 (trilobites). Unexpected venue for The Sex Pistols.

*Cuttysarkus* Estes, 1964 (fossil lizard).

*Jurassosaurus nedegoapeferkimorum* Dong and Holden, 1992 (ankylosaur). One highly fragmented fossil

honors "Jurassic Park" stars NEil, DErn, GOldblum, Attenborough, PEck, FERrero, Knight, Richards, and Mazzello.

*Mozartella beethoveni* Girault, 1926 (wasp).

*Petula* Clark, 1971 (tineid).

*Polemistus chewbacca* Menke, 1983 (wasp). Doesn't need a "Star Wars" spaceship to fly, though.

*Strigiphilus garylsoni* Clayton, 1989 (owl louse). Hard to think of any cartoonist who's drawn more insects.

### They really did this

*Abra cadabra* Eames and Wilkins 1957 (bivalve). Has been moved to another genus, alas, and now goes by *Theora cadabra*.



The big feet of this *Agra* beetle inspired its Smithsonian discoverer to give it the species name *sasquatch*.

George Venable/Smithsonian

*Apopyllus* now Platnick and Shadab, 1984 (spider).

*Ba humbugi* Solem, 1983 (snail). From Mba island, Fiji.

*Chrysops balzaphire* Philip, 1955 (deer fly).

*Dicrotendipes thanatogratus* Epler, 1987 (midge). Yes, that second word really does mean Grateful Dead.

*Gluteus minimus* Davis and Semken, 1975 (fossil). No known relation to anybody's maximus.

*Heerz tooya* Marsh, 1993 (wasp).

*Kamera lens* Woodcock, 1917 (protist).

*La cucaracha* Blesynski, 1966 (pyralid).

*Lalapa lusa* Pate, 1947 (tiphiid wasp).

*Ochisme*, *Dolichisme*, *Marichisme*, and *Peggichisme* Kirkaldy, 1904 (all hemiptera). That *chis* sounds like "kiss."

*Omyomymar* Schauf, 1983 (mymarid wasp).

*Oops* Agassiz, 1846 (arachnid) and Germar, 1848 (beetle). Named before the interjection became popular,

however.

*Pison eu* Menke, 1988 (sphecid).

*Tabanus nipontucki* Philip, 1942 (horse fly). Described during the bombing of Pearl Harbor.

*Tabanus rhizonshine* Philip, 1954 (horse fly).

*Vini vidivici* Steadman and Zariello, 1987 (parrot). Overly optimistic since the species recently went extinct.

*Ytu brutus* Spangler, 1980 (beetle).

### Letters:

As an insect taxonomist, I was amused by your article about whimsical scientific names but disappointed that one of my favorites was not mentioned: the wasp *laha ha*.

Sandra Shanks  
San Francisco, Calif.

Three observations on your article: 1) Linnaean names, at their best, tell you something about the creature that is named. Thus while "*Phtheria relativitae*" may be cute, it deprives the reader of potentially valuable, or at least interesting, insights. 2) If there isn't a Taxonomy 101 in which naturalists are taught not to mingle Greek and Latin stems in the same name (as in "*Thanatogratus*"), there certainly ought to be. 3) Some of the most interesting Linnaean names are those that end in *ia* and reveal a naturalist's name when the *ia* is stripped off? as *Fuchsia*, for Fuchs, *Escherichia* for Escherich, *Yersinia* for Yersin, and *Poinsettia* for Poinsett. Peeling *ia* endings off Linnaean names is a simple, harmless, and entertaining hobby for the idle scientific browser.

Tom Parsons  
New York, N. Y.

### References:

You can learn more about interesting scientific names and curiosities of biological nomenclature at <http://entmuseum9.ucr.edu/staff/yanega.html>, <http://www.bishopmuseum.org/bishop/HBS/BOGUS/menke.html>, and <http://www.best.com/~atta/taxonomy.html>.

For a larger image of the watercolor of *Hattoria cylindrica* and dozens of other botanical illustrations, check the postings by botanists at the Smithsonian's National Museum of Natural History at <http://www.nmnh.si.edu/botany/images.htm>. Some of the loveliest come from Mary Emily Eaton (1873-1961).

### Further Readings:

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### Sources:

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