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General Article

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Taxonomic (r)evolution, or is it that zoologists just want to have fun?†

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ABSTRACT

Zoologists do not lack a sense of humour. There are discreet and indiscreet evidences.

Key words: Binominal nomenclature; ICZN; generic name; specific name; taxonomy.

IN THE BEGINNING

Aha ha! Yes, you are allowed to laugh from the very beginning, because it is fittingly a laughing matter, but not in a way you would anticipate. For a start, Aha ha (mind the italics, and capitalisation) is no ordinary interjection, it is the scientific name of an Australian wasp discovered in 1977. The discoverer Arnold S. Menke must be quite proud of his exclamatory publication titled "Aha, a new genus of Australian Sphecidae..." that he changed his car registration plate into "AHAHA", so that everyone can laugh at it all the way.

This is quite interesting. I told you to mind the italics, This is a genus created by David K. McAlpine of the Australian Museum in 1991 for new species of flies.² The caption for the fly

Corresponding author: Lalchhandama Phone: +91-9436198718 E-mail: chhandama@gmail.com poster on his office door even reads, "Look at *This*!" To my optimistic and positivistic view, zoology will answer all the crucial questions of life. Take this for an example. You can now precisely answer, with detail scientific description, to the common question, "What is this?" *This* is a genus of Australian kelp fly belonging to the family Coelopidae. It has two species *This canus* is its type species. These flies are posing serious problems in seaside recreations in New South Wales; and so on. And you are not joking.

If that is the response they did not expect, just say *Oops!* And resume your zoological chat line: *Oops* is a genus created by Louis Agassiz in

†Disclaimer. The latter part of the title is not to be confused with Cindy Lauper's unforgettable song "Girls Just Want to Have Fun", or a 1985 movie by that title, or a soundtrack "Princesses Just Want to Have Fun" from the movie *Barbie: The Princess and the Popstar*, or Borat's arrogant statement in the *Da Ali G Show*, "In Kazakhstan... Girls just want to have f***."

1846 for an arachnid, and by Ernst Friedrich Germar in 1848 for a beetle.³ You may also add your linguistic facetiousness by saying that oops was not an interjection before then. (But I genuinely don't know what it was – perhaps, a precursor to boops! Sorry! *Boops* is a genus of fish already created by Georges Cuvier in 1814, and Linnaeus even had *Boops boops* in 1858, and he was not desperately crying for mammary glands, he used them from a Greek word meaning "cow-eye" for the large eyes of the fish.)

As you shall see zoologists through ages have the tendency to "Always Look on the Bright Side of Life", to borrow a song title from *The Life of Brian* and *Not the Messiah (He's a Very Naughty Boy)*, and oftentimes trespassing beyond the very peculiar (I mean here *Verae peculya*) to absolutely *Notoreas*. (*Verae peculya* is a braconid wasp discovered by Paul M. Marsh in 1993;⁴ whereas *Notoreas* is a generic name of New Zealand butterfly discovered by Edward Meyrick in 1886.⁵)

CODEX TAXONOMIA

The first *Homo sapiens* Adam (not to be taken literally, for he is a myth) was a total loser in his historic assignment; being charged with the herculean task of identifying all creatures, he produced none. Don't get me wrong, no one has ever heard of Adam's taxonomy. It had to pass several millennia until a Swedish naturalist hit the ground running, and actually put an effort to it. Since the baptism of binomial nomenclature by Carl von Linné, or Carolus Linnaeus, whichever way you lean (pun intended) to, (honoured with the sobriquet "The Second Adam" and utterly fared far better than the first) in the 18th century CE in his magnum opus Systema Naturae, biological names are rendered in strict language, so as to make them universally acceptable. Following suit, earthlings of zoological persuasion had established a law, less ambiguous that those carved in stone at Mt. Sinai, named International Code of Zoological Nomenclature. (There are counterparts in other branches of biology, such as International Code of Nomenclature for algae, fungi, and plants, which govern naming of plants including vegetables and weeds that we find annoying; and International Code of Nomenclature of Bacteria, for microscopic things that give us diarrhoea, dysentery and all the bad stuffs.) With due respect to Linnaeus, people who prefer creepy-crawlythings had christened "binominal nomenclature" as the name of the system; and it is only the vegetarians – I mean botanists – who still cling to the old rugged, but not necessarily outdated (to give them a little bit of sympathy), "binomial nomenclature".

To meander into Biblical musing, one of Linnaeus' major pioneer works was on banana. A staunch creationist by then, he posited that the forbidden fruit which Adam and Eve ate was nothing but a banana, contrary to the legendary fable that it was apple. And he baptised it Musa paradisiaca as a reminiscence of the Garden of Eden.⁷ Preference to apple is only a whimsical choice; the Bible is ostensibly vague it its description of the fruit of "the tree of the knowledge of good and evil". This is one of the old Adam's failures. In contrast, Linnaeus could have been right, as a theory also complemented that Adam and Eve most certainly used banana leaves to hide their nakedness. Popular notion holds that it was fig leaves, but anyone who has had an experience of actually touching fig leaves would amen to Linnaeus' line of thought.8 On the practical point of view, banana leaves and stems are favourite fabrics in many tribal costumes for their pliant and smooth nature. Fig leaves, on the other hand, are small, hard, sharp, coarse and dreadfully uncomfortable to cover up one's tender genitalia, compounded by the original sin and an eternal curse. To support the claim further, theologically speaking, banana is called the "fig of Eve" in Hebrew.9 Linnaeus in fact wrote to the Royal Swedish Bible Commission that it was definitely the banana leaves which were the first ever costume, as the fig leaves are just inadequate for an apron.¹⁰

Fantasy aside, whatever part of the universe one is from, these are the binding rules one must

adhere to in scientific names. For zoological names ICZN has specific decrees, some of which are worth mentioning here.

<u>Article 11A</u>. Use of vernacular names. An unmodified vernacular word should not be used as a scientific name. Appropriate latinization is the preferred means of formation of names from vernacular words.

Article 25C. Responsibility of authors forming new names. Authors should exercise reasonable care and consideration in forming new names to ensure that they are chosen with their subsequent users in mind and that, as far as possible, they are appropriate, compact, euphonious, memorable, and do not cause offence.

<u>Appendix A</u>. Code of Ethics 4. No author should propose a name that, to his or her knowledge or reasonable belief, would be likely to give offence on any grounds.

As is made obvious, some zoologists find every possible means to sidestep from these commandments. It could well be due to their alertness of a rather pusillanimous standpoint to dodge any action upon breach of the code, as the code ends: "The observation of these principles is a matter for the proper feelings and conscience of individual zoologists, and the Commission is not empowered to investigate or rule upon alleged breaches of them." Some zoological names are upshot of instantaneous brain wave, even gags, and some are deliberately derogatory, insipid and offensive. One may argue them as satisfying at least the criterion of being memorable, but on second thought they sound more euphoric than euphonious.

THEY CAN'T HELP IT

The grandmaster Linnaeus was a genius with rendering classical Greek and Latin names. But even he could not free himself from rather injudicious names. It is also hard to fathom the circumstances surrounding him at the time, but obviously he must have been in quite a hectic state of mind, while naming an amoeba *Chaos chaos*. In fact this name created a lasting chaos in taxonomy with vociferous arguments on the

validity of the name. Later it was revised as *Pelomyxa carolinensis* (being described from North Carolina) in the early 1900s to differentiate it from a closely related species *Amoeba proteus*. ¹¹ Thorough analyses revealed that it was a unique species, and to credit both taxonomy but giving a slanted weight to Linnaeus, it is formally accepted as *Chaos carolinensis*, as proposed by Robert L. King and Theodore L. Jahn in 1948. ¹² But molecular taxonomy still reserve the controversy since *Amoeba* and *Chaos* appear to be monophyletic. Thus, *Chaos* is still in chaos.

Moreover, we do not know for certain to what degree he was disappointed by his disciple Daniel Rolander that he named a tiny black beetle *Aphanus rolandri*. The Greek word *aphanus* means ignoble or dishonest. Their falling-out was so intense that Rolander never could find an academic position he thrived for, thwarted by the looming influence of Linnaeus in the entire scientific academia. It can be construed that Linnaeus must have been really pissed off to conceive such a deprecating name.

It did not escape him some degrees of obscenity either (but in a more vegetable – *Oop*! I Did it Again, is Britney Spear's song – botanical purview but definitely with a zoological imaginations). He named a butterfly pea *Clitoria* for its obvious resemblance to certain organ of females (imagine his roving mind and eyes while naming), and a stinkhorn species *Phallus*, a lookalike of male urinary device. They are better left unexplained to the underage students.

To delve right into genitalia, the discovery of the first dinosaur is fantastically amusing. The first fossil was a bulbous bone discovered from the Taynton Limestone Formation of Stonesfield limestone quarry, Oxfordshire in 1676. Robert Plot, Professor of Chemistry at the University of Oxford and first curator of the Ashmolean Museum, gave the first description and illustration in his *Natural History of Oxfordshire* in 1676. He identified the bone as the lower extremity of the thighbone or femur of an exceptionally large animal hitherto unknown. There were two competing theories, one advocating it was a bone of a Roman war elephant, and an-

other claiming that it was of a giant human, such the biblical Nephilim. A physician Richard Brookes re-described it in 1763 in his A System of Natural History, by comparing it to human skeleton. In spite of the unusual size, he found it stunningly similar to "human testicles" that he could not shy away from conferring the Latin name Scrotum humanum (no need to provide an English rendering). It was only in 1824 that William Buckland, Professor of Geology at the University of Oxford and dean of Christ Church, correctly described it as that of an extinct reptile (later to be called dinosaurs after Richard Owen coined the name Dinosauria in 1842). He named the animal Megalosaurus (now we can decently translate it as "big lizard"). 13,14 But it was not without dispute because binominal nomenclature holds that priority is more important, regardless of the wrong description, that it should be S. humanum as it fulfilled the naming convention.¹⁵ However, the argument never survived, obviously because the name was too obvious. (Imagine the name echoing in zoology and geology classrooms, or a viva voce, "What do you know about Scrotum?")

AND WHATEVER IT WAS CALLED, THAT WAS ITS NAME

It perfectly follows the naming convention when binomen are after places, particularly where they were discovered, or after the scientists, especially the discoverer or someone who influenced them, or people close to them. In fact scientific names are profuse with such names. But some are a bit way off. An amphipod (crustacean) was named Gammaracanthuskytodermogammarus loricatobaicalensis by Benedykt Dybowski in 1927, which can be loosely translated as "amphipod with hollow spines on its skin from Lake Baikal" after the lake from where it was discovered. In fact the name was the longest ever scientific name, but unfortunately was ruled out, they say, by ICZN. Now the longest species name is that of a soldier fly Parastratiosphecomyia stratiosphecomyioides described in 1923 by British

entomologist Enrico Brunetti. André Nel and Gunther Fleck introduced the longest generic name *Kimmeridgebrachypteraeschnidium* for a fossil insect in 2003. For the record, a Chinese great evening bat has the shortest scientific name *Ia io* Thomas, 1902.

It is still quite honourable to name after historically and culturally distinguished persons, such as Aesop (Aesopichthys), Ludwig van Beethoven (Gnathia beethoveni), Arthur Conan Doyle (Arthurdactylus conandoylei), John Keats (Keatsia), Abraham Lincoln (Lincolna and Lincolnanna), Martin Luther (Lutheria), Karl Marx (Marxella and Marxiana), Leonardo da Vinci (Leonardo davincii), Johann Wolfgang von Goethe and William Shakespeare (Goetheana shakespearei, Legionella shakespearei and the genus Shakespearia), Robert Frost (Aleiodes frosti), Nelson Mandela (Anelosimus nelsoni and Mandelia), and Lord Tennyson (Tennysoniana). But the last two decades saw unprecedented credit to popular celebrities, and it is not clear whether zoologists have run out of scientific inspiration or geographical names. Scientific names last forever, or at least as long as science endures, but not fame and fortune. To become an immortalised celebrity, try following these people who have their indelible scientific names: The Beatles (Greeffiella beatlei), James Cameron (Pristimantis jamescameroni), Johnny Depp (Kootenichela deppi) Jimmy Fallon (Aleiodes falloni), Lady Gaga (Aleiodes gaga), Mick Jagger (Aegrotocatellus jaggeri, Jaggermeryx naida and Anomphalus jaggerius), Angelina Jolie (Aptostichus angelinajolieae), John Lennon (Notiospathius johnlennoni), Jennifer Lopez (Litarachna lopezae), Paul McCartney (Struszia mccartneyi), Freddie Mercury (Mercurana and Taeniopteryx mercuryi), Marilyn Monroe (Norasaphus monroeae), Jim Morrison (Barbaturex morrisoni), Pink Floyd (Cephalonomia pinkfloydi), Elvis Presley (Paradonea presleyi), Arnold Schwarzenegger (Agra schwarzeneggeri and Predatoroonops schwarzeneggeri), Shakira (Aleiodes shakirae), Frank Sinatra (Sinatra), Steven Spielberg (Anhanguera spielbergi), Kate Winslet (Agra katewinsletae), Liv Tyler (Agra liv), and Frank Zappa (*Amaurotoma zappa*, *Vallaris zappai*, *Pachygnatha zappa*, *Phialella zappai* and *Zappa*). (For an exhaustive and updated list, see the Wikipedia page.¹⁶)

We can appreciate a bit of childish fantasies including a fish Batman Whitley, 1956; extinct turtles Ninjameys Gaffney, 1992 (meys means turtles, so the Teenage Mutant Ninja Turtles comes into picture); a fly *Cinderella* Steyskal, 1949; a fly Nemo McAlpine, 1983; a mite Darthvaderum Hunt, 1996 (Darth Vader is from Star Wars); extinct reptile Excalibosaurus McGowan, 1986 (Excalibur is the legendary sword of King Arthur); a crustacean Godzillius Yager, 1986; Morlockia Garcia-Valdecasas, 1984 (Morlocks were cave-dwelling nocturnal and villainous people in H. G. Well's The Time Machine); and Gollum Compagno, 1973 (a character from J. R. Tolkien's *The Hobbit*, made into a bald-grunning little man in The Lord of the Rings).

The rock band Green Day is properly latinised to Macrocarpaea dies-viridis, a Latin diesviridis literally means green day. 17 Another rock band Grateful Dead also have their name engraved in taxonomy, but they did not know it. A hard fan of theirs, John Epler named a midge Dicrotendipes thanatogratus in 1987. The scientifically illiterate rockers never knew that the Greek thantos means dead, and the Latin gratus means grateful. A fan of Bono, I particularly like Aptostichus bonoi for a spider found in Joshua Tree National Park in California and described in 2012.18 For those who have less proficiency in rock music, Bono is the singer-frontman of an Irish band U2 (not a chemical formula) whose breakthrough album was *The Joshua Tree*, which bagged Grammy Awards for Album of the Year in 1988 – get the drift?

Admiring some politicians maybe too political, as they are not often scientifically knowledgeable, but George W. Bush (*Agathidium bushi*), Dick Cheney (*A. cheneyi*), and Donald Rumsfeld (*A. rumsfeldi*) all belong to the same genus! Bill Clinton (*Etheostoma clinton*), Al Gore (*E. gore*), Jimmy Carter (*E. jimmycarter*), and Barack Obama (*E. obama*) are also classified in

the same genus. No politician, however, matches Obama, he is a spider, (*Aptostichus barackobamai*), a fish (*E. obama*), an extinct reptile (*Obamadon gracilis*), and a worm (*Paragordius obamai*). There is also "Made in India" (to borrow Alisha Chinai's song), for the scientist and former President A. P. J. Abdul Kalam (*Horaglanis abdulkalami*). We would like to forget the Second World War, the genocide, the holocaust, and all the horrors, but Adolf Hitler just has to be remembered as *Anophthalmus hitleri* and *Rochlingia hitleri*.

ON THE WRONG SIDE OF BED

Sometimes zoologists, as do the rest of the same species, have a dog's life, which is of a different species – competition, arguments, and all that jazz. There are opportune moments for some to come up with an ingenious solution. Linnaeus' A. rolandri is a classic. Another infamous tale is between the 19th-century American palaeontologists Edward Drinker Cope and Othniel Charles Marsh, whose bitter rivalry knew no bounds. They were the giants of dinosaur hunting in America. Their enmity epitomised into what came to be known as the Bone Wars, or the Great Dinosaur Rush, that resulted in fossil destruction and grand theft. Beyond mere physical antagonisms, Marsh named an extinct marine lizard Mosasaurus copeanus in 1869 (read the specific names carefully, but keep the children out of earshot) to which Cope retaliated by naming a fossil of hoofed-mammal Anisonchus cophater in 1884. Cope triumphantly explained the etymology to his disciple Henry Fairfield Osborn, "Osborn, it's no use looking up the Greek derivation of cophater, ... for I have named it in honor of the number of Cope-haters who surround me..."

But we can exempt them from the clutches of ICZN Code of Ethics (given above). But there are clear violations of the code when it was already in existence. For example, a century later, Leigh van Valen named another hoofed mammal *Oxyacodon marshater* in 1978, to give Cope a

dose of his own medicine.¹⁹

Another paleontologist, William Jacob Holland, who had a notoriety of becoming Chancellor of the University of Pittsburgh and Director of the Carnegie Museums of Pittsburgh, developed a sense of impunity by adding his name as first author on every publication written by his staff, even when he did not make any contribution. O. A. Peterson had quite enough of it and with an immediate chance of discovering a large pig-like mammal, he named it *Dinohyus hollandi* in 1905. The meaning of the name revealed all; it is a Greek for "Holland's terrible hog". When Pittsburg newspaper ran the news of the discovery, its headline captivatingly reads: "*Dinohyus hollandi*, The World's Biggest Hog!" 20

STEPPING OUT OF LINE

I firmly believe Elvis Presley, yes "The King", deserves to go down in history as a lasting hero of rock music, but to give wasp a name *Preseucoela imallshookupis* is more flushed with sense of humour. The generic prefix *Pres*- is after Presley's surname, whereas the specific name is after Elvis' 1975 single "[I'm] All Shook Up". ²¹ For apparent reason the sci-fi movie *Predator* has received quite a taxonomic credit, beside getting a generic name, *Predatoroonops*, the specific names say a lot: *P. mctiernani* is named after the director, John McTiernan; *P. peterhalli* for Kevin Peter Hall who played the predator; and *P. schwarzeneggeri* for Arnold Schwarzenegger. ²²

The 1993 Hollywood blockbuster *Jurassic Park* has fitting name for a dinosaur, *Jurassosaurus nedegoapeferima*, discovered in China in 1993. The specific name is derived from the initial letters of the surnames of the cast: Sam <u>Ne</u>ill, Laura <u>Dern</u>, Jeff <u>Goldblum</u>, Richard <u>Attenborough</u>, Bob <u>Pe</u>ck, Martin <u>Ferrero</u>, Ariana <u>Richards</u>, and Joseph <u>Mazzello</u>. It was suggested by the film director Steven Spielberg. Unfortunately for the generic name, it had to be revised to *Tianchisaurus*.²³

Scaptia beyonceae was not named entirely to honour Beyoncé Knowles per se, but more be-

cause of the voluptuous abdomen of the horse fly that reminded the authors Bryan D. Lessard and David K. Yeates of the glaring Beyoncé's bum. 24 Extra extra is a mollusk named by Félix Pierre Jousseaume in 1894; and the news headline was just as appropriate, and ran "Extra extra: Read All About It!" He also named another Diabolica diabolica in 1897. 25

Some zoologists do not give a hoot to the ICZN "reasonable care" even though they are not necessarily offensive, but still laced with sloppy demeanour. For instance, when D. Elden Beck and James M. Brennan named a new species of chigger Trombicula doremi in 1955, it sounds quite ordinary. But when the next species became *T. fasola* we can realise that we have the complete notes on the major scale of tonic sol-fa. Horace Burrington Baker gave a generic name Aa for mollusks in 1940, perhaps to get it on every first list, who knows what. Cornelius Becker Philip named a horse fly Tabanus rhizonshine in 1954 just for the expression "rise and shine". F. E. Eames and G. L. Wilkins, of the British Museum of Natural History of all places, named a mollusk a childish magical rant Abra cadabra in 1957. (But it was later moved to the genus *Theora*. Think of discussing about the mollusk, and the students interject, "Where is the magic?") John M. Burns most probably had little enthusiasm when he discovered a new species of butterfly in 1996, as he bluntly named it Cephise nuspesez (read as "new species"). 26

George Willis Kirkaldy was a zoologist with a record of being obsessed with kissing. In 1904 he named a series of bugs *Alchisme*, *Dolichisme*, *Elachisme*, *Florichisme*, *Isachisme*, *Marichisme*, *Marichisme*, *Ochisme*, *Peggichisme*, and *Polychisme*. The prefixes are clearly girls' names, and the suffix is pronounced "kiss me", perhaps in memory if his frivolous exploits. A petition was filed in 1912 to the International Entomological Congress to invalidate the name, but Kirkaldy won on priority issue.²⁷ When William D. Kearfott introduced in 1907 a string of alphabetically organised specific names of the moth *Eucosma* as *bobana*, *cocana*, *dodana*, *hohana*, *lolana*, *momana*, and *totana*, other entomologists could not just

bear it. They introduced replacements, but the original name has priority, hence, several synonyms came into existence.

Alan Solem named a snail *Ba hambugi* in 1983, clearly a borrowed rant of Ebenezer Scrooge from Charles Dickens' *A Christmas Carol*. It is hard to fathom whatever inspired Paul M. Marsh to name the wasps *Heerz tooya* ("here's to ya") and *Heerz lukenatcha* ("here's lookin' at ya") in 1993.²⁸

The most famous of Roman Emperors could not be just forgotten. His memorably triumphant statement, "Veni, vidi, vici," (I came, I saw, I conquered) is stamped in the name of an extinct parrot by David W. Steadmen and Marie C. Zarriello in 1987, Vini vidivici. It was to satirise the coming of people in Marquesas Island in Pacific, where the parrots were found, the people saw the birds, and eventually conquered them to their extinction in around 10-11th century CE. Conveniently, René Primevère Lesson had created the genus Vini way back in 1833. Caesar's immortalised dying word "Et tu, Brute," ("And you too, Brutus?") was further immortalised by Paul J. Spangler in 1980 by naming an aquatic beetle *Ytu brutus*.²⁹ It is purely coincidental that "Ytu" comes from the local Brazilian word for waterfall, where the species was discovered.

Some names are apparently not seriously thought through. Harold Mellor Woodcock named a protist *Kamera lens* in 1917, which directly opens a massive door of opportunities for new species names like *Kamera lucida*, *Kamera pixel*, *Kamera cover*, *Kamera stand*, and so forth. Introducing a new genus *Aaaaba*, by Charles L. Bellamy in 2013, for jewel beetles³⁰ is almost awkward to say it out loud.

Arnold S. Menke wisely chose his Latinised words. In 1988 he described two new species of South American wasps *Pison eu* and *Pison eyvae*.³¹ They sound so familiar. But when he described a bizarre new species of wasps from New Guinea, why the heck did he name *Arpactophilus preposterus*?³² Is it too preposterous? Nothing is out of place with the name of moth *Eubetia bigaulae*, given by John W. Brown in

1998.³³ But do you know it should be read "You betcha, by golly"?

Helobdella nununununojensis looks like a careless typing error, but is actually a name for Bolivian leech described by Mark E. Siddall in 2001.³⁴ The name refers to the type locality Nununununoj, a Quechua place name meaning "The Place of Very Bare Breasts", from Nunu meaning nipple. The species name, thus, should be pronounced nyue-nyue-nyue-nyue-nyoehensis. Euglossa (Glossura) bazinga is a new species of orchid bee described in 2012 by André Nemésio and Rafael R Ferrari. The specific epithet attributes to the cynical catchphrase of Dr. Sheldon Cooper from the comedy serial The Big Bang Theory.³⁵

Johan Christian Fabricius created the genus of beetle Agra in 1801. But he would never had dreamt of what would came after. Some of the later species became Agra nevermanni Liebke 1938 (sounds like "nevermind); Agra pia Liebke, 1940 (agraphis is a condition when one loses the ability to write); Agra vation Erwin, 1983; Agra cadabra Erwin, 1986 (not to be confused with Abra cadabra, a clam); Agra vate Erwin, 1986; Agra phite Erwin, 1987; Agra memnon Erwin, 1987 (remember Agamemnon from Troy or Armageddon, the movies?); Agra dable Erwin, 2002; Agra grace Erwin, 2010; and Agra ce Erwin, 2010. Indeed the major author Terry L. Erwin had a chronic obsession with this genus that it was him who gave so many honorific names to celebrities (like A. katewinsletae, A. liv, and A. schwarzeneggeri) and scientists, especially in his 2002 paper.³⁶ In addition, his *Agra not* has no meaning (probably he disagreed to something)! He named A. ichabod because its head was missing of which he reminisced about the headless horseman and frightened schoolteacher Ichabod Crane in The Legend of Sleepy Hollow. After so many names he surely ran out of vocabulary as he named A. notcatie after naming A. catie. His etymoligical root did not deny, it was plainly because it was not A. catie.

Something like that chain of naming occurred to Norman I. Platnick. William Sharp MacLeay had described the genus Nops in 1839 for two-eyed spiders endemic to South America, Central America, and the Caribbean islands. Naming was easy as pie for Platnick when he discovered very similar spiders but defying the diagnostic features of Nops. Hence, in 1994 he constructed three new genera Notnops, Tisentnops ("this ain't Nops"), and Taintnops ("it ain't Nops").37 In 2007 he had yet to name a closely related genus as Nyetnops (if you have come across someone saying "no" in Russian, he/she is bound to say "nyet"). 38 It became a habit of Platnick to back away from discreet etymology and simply use the expression "an arbitrary combination of letters" to justify his scientific names. With Mohammad U. Shadab, he named another spider Apopyllus now in 1984.39 But it rings of the 1979 Hollywood blockbuster film Apocalypse Now.

In a similar vein, when Kelly B. Miller and Quentin D. Wheeler created a new genus of round fungus beetles *Gelae* in 2004, they were not hesitant to name the new species *Gelae baen* (sounding like "jelly bean"), *G. balae* ("jelly belly"), *G. donut* ("jelly doughnut"), *G. fish* ("jelly fish"), and *G. rol* ("jelly roll"). No need to probe into Greek or Latin root, they explicitly described that these were "whimsical arrangement of letters", 40 and came out quite mouthwatering.

JUST A FANFARE

I cannot trace for certain as to who exactly manipulated taxonomy into money-making scheme. Perhaps the pioneers are Robert Wallace and Humberto Gomez of the United States Wildlife Conservation Society, who discovered a new titi monkey species in Bolivia in 2005. Instead of scratching their own heads for the name and make nothing out of it, they decided to get the benefit from others, and for a good cause. The scientific name was put on auction at Charityfolks.com, a non-profit auction venue. The money was to be used for conservation of the monkey's habitat at the Madidi National

Park. The winner was an anonymous philanthropist with US \$650,000 bidding, and out-bid Ellen DeGeneres. The species became *Callicebus aureipalatii*, the specific name meaning "golden palace", as the buyer was from Golden Palace Casino (golden-palace.com). ⁴¹ DeGeneres was not entirely disappointed, Eduardo Mitio Shimbori and Scott Richard Shaw generously named a wasp *Aleiodes elleni* in 2014, after her. ⁴²

In 2007, Monaco-Asia Society and Conservation International together raised a charity fund of over US \$2 million from selling names of ten new fish species discovered during expeditions to the reefs off the coast of Indonesia's Papua Province in 2006. The same year, the Florida Museum of Natural History researchers George Austin and Andrew Warren discovered a new butterfly from Mexico's Sonoran Desert. An online auction for naming rights was opened on iGavel.com, and the winning bid was US \$40,800. The scientific name became Opsiphanes blythekitzmillerae, in honour of Margery Minerva Blythe Kitzmiller of Ohio on behalf of her five grandchildren; and its common name is also given Minerva owl butterfly, after the calling name of Kitzmiller. 43 Interestingly the winningbidder remained anonymous.

In 2008, the Scripps Institution of Oceanography in La Jolla sold the name of a sea slug for US \$10,000. The same year Purdue University put on auction the rights to name seven newly discovered bats and two turtles. But the discoverer John Bickham was quite disappointed to get only US \$5,000 as the highest bid.

In 2009, a new species of shrimp was discovered by Anna McCallum, a PhD student at the University of Melbourne. The species name was auctioned on eBay to raise fund for the Australian Marine Conservation Society (AMCS). The highest bidder was a former NBA basketball player for the Chicago Bulls, Luc Longley, at US \$2,900 US. Hence the name *Lebbeus clarehanna*,⁴⁴ as a birthday gift to his fifteen-year-old daughter, Clare Hanna. That is just so cool.

An enchanting banded box jellyfish created quite a stir for its description in 2011, and is a fine example of public science. It had been seen

in waters since 1989, and once captured it was given to zoologists, who identified it as member of the genus *Tamoya*. As a public contribution the scientists offered to anyone who would give the best specific name. More than three hundred entries were received in an online competition. The winner was a high school biology teacher Lisa Peck, who suggested *ohboya*, as she could not dream of anyone who encounters the amazing jellyfish without exclaiming "Oh boy!" 45

As of writing this article, Charles Messing and his team at Nova Southeastern University in Florida have discovered a new species of sea lily. To make further aggravation (not the species) of the ICZN they are trying hard to enrich their pockets. They put an online auction on eBay stating, "You are bidding on the rights to name a brand new sea lily species discovered by a Nova Southeastern." Starting bid stands at US \$4,000.00. Squander your money and make a lasting name of yourself, and Messing assures, with a grin, "After all, there aren't many gifts you can give that will go on well after your time on earth. Your name will be immortalized in scientific publications forever."

Linnaeus could have struck gold, had he known the proper market.

OOPS AND OTHER SLIPS OF THE TONGUE

Languages and their usages evolve. The meaning of one on vesterday could differ from that of today. Linnaeus had a very urbane reason to name a lesser earwig Labia minor, but the name also refers to certain accessory of female private parts. It was not meant as a rude name, and Linnaeus had a perfectly reasonable basis for it. William Ford Leach earlier erected (yes, I mean erected as in created) the genus Labia for earwigs, and Linnaeus simply described the L. *minor* (=lesser/smaller) precisely meaning "lesser earwig", its vernacular name in English. Nothing obscene about it. We should just say to Linnaeus, "You're genius," I mean Eurygenius, which is a genus of ant-like beetle described in 1849 by Georges de la Ferté-Sénectère.

When René Primevère Lesson named a ge-

nus of monarch flycatchers Arses he must have regretted ever since. It is not particularly weird when Cheng-Chao Liu and Wan-Shu Tian named the salamander Batrachuperus longdongensis in 1983, because it was after the river Longdong where it was found; hence also the common name Longdong salamander. Dong is in fact a very common name in Chinese (cf. Ref 23). But to a vulgar English-speaking people it means a "member", to use at least a euphemism. One research paper in 2005 titled "Ultrastructure of the spermatozoa in Longdong [emphasis added] stream salamander Batrachuperus longdongensis"47 is almost as hilarious. Never ask anyone, "Have you seen Longdong?" They actually might have, to your humiliation.

Whatever innovation Melville H. Hatch had in mind, it did not shine through in his naming of round fungus beetle with rude-sounding words such as *Colon rectum* (1933) and *Colon forceps* (1957); and other zoologists to follow had not much of a choice but to come up with *Colon arcum*, *Colon monstrosum*, *Colon grossum*, *Colon pararectum* and *Colon horni*. The last specific name is not remotely about libido, but an honorific to the 19th-century American zoologist George Henry Horn who established the subfamily Coloninae. But then the fun started.

When Erasmus Haeselbarth and Conrad Loan named a butterfly genus *Towneselitis* in 1983, it was meant to honour Henry K. Towns, Jr. (1913-1990), an eminent American entomologist, ⁴⁸ and not as an insult. As it turns out, the tone does have the similar ring to tonsillitis.

The Latin suffix –anus is very common. But when combined with inappropriate word it can become undesirably offensive. For example, the Triassic African reptile *Dolichuranus* sounds like "do-lick-your-a***", a starfish *Inyoaster* sounds like "in-your-a****", and *Soranus* like "soreanus"; but they are not.

I cannot find the etymology of *Enema pan*, a beetle described by Johan Christian Fabricius in 1775, but it sounds disgusting. When B. Neomoegen named a moth genus *Dyaria* in honour of his colleague-friend Harrison G. Dyar in 1893, he most probably did not think of the

similar-sounding word diarrhoea.

Who's Evenhuis?

Neal Evenhuis (Kornelus Luit Evenhuis) is a Senior Entomologist at the Bishop Museum in Hawaii. A world leading taxonomist and past President of International Commission on Zoological Nomenclature, and has described over 500 species of insects. ICZN (the Commission) is the authority on ICZN (the Code), and what does the President do?

Not all his hundreds of scientific names are particularly striking, but Evenhuis developed a sense of taxonomic enlightenment when he visited the Smithsonian Institution in Washington, D.C. in the early 1980s. There he encountered the maverick works of Arnold Menke and Terry Irwin, among others. That was his eye opener, realising one could play with ICZN. His first practical joke emerged with his analyses of the fly genus *Phthiria*. He thought to himself how to spice up things a bit, and came up with a nifty solution – he named one species Phthiria relativitae in 1985.49 Does it ring a bell? How about silencing the first two letter and think about Einstein's theory of relativity? That's it. He even thought of *Phthiria gravitae* but ultimately abandoned it as he felt that it really was too farfetched. To avoid a scrupulous reviewer he submitted the paper to a Polish entomological journal Polskie Pismo Entomologiczne with a confidence that "it would be a miracle if anyone in the journal's editorial department would pronounce the name as we would in English," and he chuckled. In the same paper he also introduced Oligodranes humbug and O. zzyzxensis, but defended elatedly that they were after Humbug Creek, and Zzyzx Springs in California respectively. To the shame of fun-loving zoologists, Evenhuis made a series of taxonomic revision of flies in 1986, among which he reluctantly had to bury the jolly name P. relativitae in its infancy, to a different genus Poecilognathus.⁵⁰

But he never gave up. The Mexican screaming sound *Iyaiyai* is now a valid genus of fossil fly. When he described it in 1994 he originally

proposed *I* [no typographical mistake here] for the generic name, but it backfired as one of his co-workers pointed out, "*I* have small male genitalia." So he had to ultimately change it, as no one really is particularly proud of having a tiny "dong".

In 2001 he named a fly Reissa roni after Rice-A-Roni (a boxed food made of rice).⁵¹ In 2002 he discovered a new genus of flies called Pieza. Guess what its species are? Pieza kake, Pieza pi, Pieza rhea and Pieza deresistans. 52 Not much of zoological jargon, eh? His obsession with snacks had started in 1984 when he named a fly Bombylius aureocookae after oreo cookies.53 It may not be possible to accuse him of copyright infringement but his name of a fly Villa manillae in 1993 is significantly similar to the name of Milli Vanilli, a pop duo whose debut album Girl You Know It's True won them a Grammy for Best New Artist in 1990. Their Grammy was rescinded after a few months when the Los Angeles Times author Chuck Philips outed that it was not their original work, and even the vocals were not theirs. But before we strip off Evenhuis of intentional plagiarism, his specific name manilla is a Spanish for "bracelet" which looks similar to the abdominal tergites of the fly; and Villa was an already existing genus.⁵⁴

He named a new species of fly *Campsicnemus iii* in 2011. Although its looks odd, it was actually in honour of John Papa i'i (1800–1870), an eminent Hawaiian.⁵⁵ Of the same genus he had named a new species in 1996 as *C. charliechaplini*, "because of the curious tendency of this fly to die with its midlegs in a bandy-legged position."⁵⁶ In 2013 he named another species *C. popeye* for its somewhat resemblance with the cartoon character Popeye in having swollen appendages.⁵⁷

In 2002 he named a fly *Carmenelectra shechisme* after the gorgeous actress Carmen Electra.⁵⁸ As for the practical purpose of the specific name he most probably lied, because she never kissed ("she kissed me") him. Yet, his fancy did not subside. In 2013 he still named another fly *Carmenelectra shehuggedme*.⁵⁹ Electra

must really make a move for such insistence. But he must be quite dejected to name the third species *Carmenelectra pernigra* (for "very black"). In the same paper he also introduced another fly *Riga tona*. But in his defence, it has nothing to do with ring tones, but is after the asteroid 1796 Riga and a fellow entomologist Anthony "Tony" Shelley.

Or shall we sue him for slander?

TO BRING DOWN THE CURTAIN

Now that you know how zoologists work, and if you think that they are nuts and that zoology is a bore and bogus, f*** off and die.

"F*** off and die" is abbreviated to Foad, and is a valid genus. It was created in 1985 by James Pakaluk to describe new species of beetles in Florida. It is highly advisable that you don't often repeat the full form, especially in modern times when littlest gestures can be perceived as harassment or indecent behaviour, it could be a worst-case scenario if introduced in taxonomy class

Cornelius B. Philip and H. S. Fuller described two new species of Japanese mites *Trombicula tamiyai* and *T. fujigmo* in 1950.⁶¹ They sound Japanese but it is said that *fujigmo* is nothing but an acronym of the military (to which Fuller served as Colonel and later Captain) slang for "F** u(you), Jack, I got my orders". You see, they are not to be taken as steadfast examples, nor as role models.

Wherefore art thou ICZN?

DISCLAIMER

At times, I have to break the rules of binominal writing, i.e. abbreviating generic name once mentioned. This, as can be noticed radiantly, is because the full binomial only makes sense or fun or disgust.

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