A tale from Bioutopia

Could a change of nomenclature bring peace to biology's warring tribes?

Pier Luigi Nimis

O nce upon a time, two tribes dominated Bioutopia. The small but powerful tribe of Real Taxonomists occupied several scattered ivory towers in the mountains. The huge but poor tribe of Name-users lived in the swamps. They both worshipped Names, but with different rites. The Name-users peacefully adored a huge book made of granite, in which billions of Names were inscribed for Eternity. The favourite occupation of the cruel Real Taxonomists was sacrificing a few Names every day, just by changing them. This they did after consulting their Oracle, Phylogenia, who lived in a cloudy forest.

One day, Phylogenia started to worship a new God, called DNA, and uttered the following words: "Why should Lichenia splendens stay together with L. tristis and those other 347 species in the same genus? DNA has spoken. The Names must change!" None of the Name-users had complained when L. tristis was transferred from the family Licheniaceae to the Tristidaceae, but they all got upset when the Real Taxonomists decided that these 348 species must be called Thundertenthronckia, because DNA had spoken. The trouble started at a meeting of the Parliament of Bioutopia. They had to change the law protecting L. tristis, the official state organism, and they refused to rename it Thundertenthronckia tristis.

Then the war started. Billions of Nameusers on one side, the few Real Taxonomists on the other. A fire was burning all around that cruel battle, the same fire that all of us quietly host in the warm shelter of our beloved binomial system.

Generic epithets are indeed like viruses. They are carriers of dangerous phylogenetic implications that kill names. As a sin of my old age, three years ago I tried to warn against the rash acceptance of new generic names. I was so naive as to suggest that the Real Taxonomists should consider the needs of the poor Name-users.

When I reread that article recently, I saw myself as an old Victorian lady fighting against the outrageous trend of wearing skirts so short as to expose the knee. Now, after three years of molecular brainstorming, even the nuns of Bioutopia go around in miniskirts. The thin umbrellas of Victorian ladies cannot fight against the hurricane of generic changes that is ahead. And why should they try? Why should one fight against something fresh, exciting and so scientifically sound? Those who worship books of granite cannot hinder a free development of (r)evolutionary taxonomy.

There is a sentence engraved on the stone cover of the Name-users' book: "Nomina si nescis, perit et cognitio rerum", which means: "If you do not know the Names, Knowledge is also dead for you." The Nameusers explained to me that humans, the only animal to develop language, cannot worship a dictionary from which 10% of the names are scraped out every year. This made me think. Name-users gain knowledge by learning and using names. But the Real Taxonomists produce brand new knowledge for mankind. Why should these tribes fight against each other? Do we really need this conflict? Do we really need generic names?

I therefore consulted another Oracle, called Logic, and she dictated: "Get rid of the binomial." Every species in Bioutopia could be designated by a single epithet: a number, or a barcode, the best food for computers. Surely Name-users — such as curators of collections and databases, authors of books and identification keys, legislators and teachers — should be happy with something like: "It's an X157YR22297!" The Real Taxonomists could then concentrate on more important matters than scraping Names off granite, and Phylogenia would be free to change her mind whenever she liked. The Name would remain the same. Peace would return to Bioutopia.

Yet I wonder how many amateurs, having found a rare *L. splendens* on an old oak, will exclaim joyfully to their companions: "Wow! Look at this! I've found *X157YR22297*!" I also wonder what they should say when, more cautiously, they think they've found just "a *Lichenia*". Surely not "I've found something starting with *X157*...".

Last week I read an article about the pressure from public authorities in the United Kingdom to create vernacular names for organisms. That article has come to my mind now, but in association with a different question: "Is *L. splendens* better

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words

Tower of power: the exalted Real Taxonomists, armed with knowledge, can change the Names.

than X157YR22297 for an amateur who reads only Chinese?" Perhaps *L. splendens*, although not a 'vernacular' name, could find a place in the list of 'mid-level names' — those that exist for half-educated people, like most of us, who would have problems in remembering what X157YR22297 is.

As a citizen of Bioutopia, I have an identity card. It bears my social security number (NMSPLGP09etc., I always forget it) plus my Name (Pier Luigi Nimis), although my parents call me "Pil" (my vernacular name). I do not see anything wrong in being named 'NMSPLGP09etc.' in all official transactions with my government. If this works for people, why should it not work for organisms?

There is an alternative solution: let things continue the way they're going. The war will eventually stop when every single species belongs to a monospecific genus. *Pier Luigi Nimis is in the Department of Biology, University of Trieste, Via L. Giorgieri 10, I-34127 Trieste, Italy, and is president of the International Association of Lichenology.*