

on widespread species, species with distinctive leaf characters; lists of synonyms, species added and deleted from the Californian checklist and epithets, plus a well organised index. This is fortunate as the only ‘complaint’ I have is that the index is essential if one has a name and nothing more than a desire to see what it looks like. However, hours of fun can be had just browsing with no particular destination. Australia and California share enough species and genera for this book to be interesting and informative.

The Eponym Dictionary of Mammals

David A. Morrison

Section for Parasitology (SWEPAR)

Swedish University of Agricultural Sciences

The Eponym Dictionary of Mammals
By Bo Beolens, Michael Watkins and Michael Grayson. 2009. Johns Hopkins University Press, Baltimore. xiii+574 pp. ISBN 978-0-8018-9304-9. \$65 £34 (hardback).

We are all aware that the use of scientific nomenclature is one thing that separates taxonomy from other fields of intellectual endeavor, with only one possible name per taxonomic group (even if different group definitions imply different names). The medical people, for example, have to deal with the expressive cot death changing name to sudden infant death syndrome (without explanation of how an infant can suddenly appear or why death is a syndrome!), and the fact that the Plummer-Vinson syndrome, the Patterson-Kelly syndrome and the Waldenström-Kjellberg syndrome all refer to the same thing (in the U.S.A., the U.K. and Scandinavia, respectively) (see Firkin and Whitworth, 2002).

Closer to home, molecular biologists have been accused of using arbitrary and sometimes whimsical names for genes, leading to obscurantism and confusion (although I believe that no name will ever beat the “sonic hedgehog” gene). The common names of species are even

To be most useful this book should probably be used in conjunction with the key to Californian mosses (Norris & Shevock 2004). It is a great pity the two books weren’t combined but ‘Californian Mosses’ would no longer have been a guide so much as a weightlifters companion.

Australia next please!

Reference

Norris DH & Shevock JR 2004. Contributions toward a bryoflora of California II. A key to the mosses. *Madroño* 51: 133–269.

worse, of course. The world record for multiple common names probably belongs to the plant *Caltha palustris* (Ranunculaceae), which is reputed to have 33 common names in English, 27 in Dutch, 45 in French, 120 in German and 50 in the Scandinavian languages. This is clearly an unworkable situation, even at a local scale, and this example alone makes it clear why formal organismal nomenclature exists.

Still, even with strict codes of nomenclature there is a plethora of scientific names, and this has lead many people to wonder where they all come from. To this end, several explanatory books have appeared over the years. Given the extent of global biodiversity, they are usually restricted to a single group of organisms, such as vertebrates (Jobling, 1991; Gotch, 1995; Pande, 2010) or plants (Plowden, 1972; Gledhill, 1989; Stearn, 1992; Gordon, 1995; Pankhurst and Hyam, 1995; Schroeter and Panasiuk, 1999), and sometimes even to a single geographic location (e.g. Baines, 1981; Strahan, 1981; Sharr, 1996).

A further restriction is to eponyms — that is, where the name includes the name of a person; and this is what we are dealing with in this review. Beolens and Watkins (2003) have previously published a worldwide compendium of eponyms for bird species, and now Beolens, Watkins and Grayson have provided one for mammals. They are apparently also preparing a comparable book for reptiles, to appear in the near future. I think that they are to be congratulated for the effort that they have put into these books, and for the apparent scrupulousness with which they have pursued their goals.

The Eponym Dictionary of Mammals is basically a collection of biographies, covering all people who have provided eponymous common names or binomials, based on the list of mammals of Duff and Lawson (2004). According to the Introduction, there are 2,351 entries covering 1,388 people and 2,310 species. The compilers have also tried to clear up misconceptions concerning names that appear to be eponyms but are not, some of which seem to have taken a lot of research on their part.

This is not only a book for reference, but also for dipping into in moments of quiet contemplation, because there is a wealth of information here. The biographies vary dramatically in length and thus detail. They also vary from amusing anecdotes to boring lists of technical achievements, presumably depending on the available information. Some of the entries read like they were copied directly from a standard self-penned potted biography, but most are much more readable than that. The information appears to be several years old, which affects a few of the entries for extant persons (e.g. recent retirements).

The detail from the original publication concerning the origin of the name also fluctuates. These origins range from dull to unexpected, so that there are gems waiting to be found by the casual browser. Sadly, many of the quotations make it clear just how much politics (often right-wing) pervaded 19th century science writing. Even more unfortunately, the politics of the compilers seems to creep into some of their presentations, which detracts from the otherwise enjoyable and objective tone of the book.

The compilers have been very scrupulous about titles, even putting the founder of biological nomenclature under the correct entry von Linné rather than the more usual Linnaeus, which few native English speakers ever seem to manage. However, I noticed that one major consequence

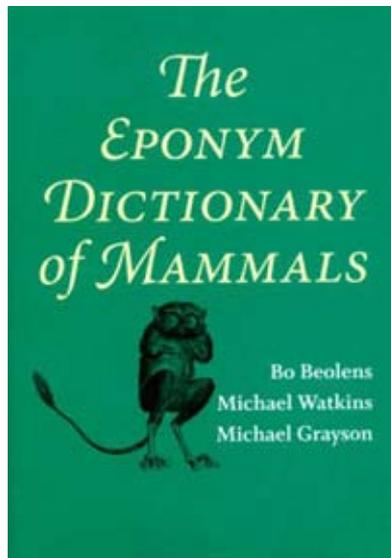
of using titles is that it emphasizes just how many military people were involved in specimen collecting while on their so-called explorations of non-European lands. The indigenous peoples who assisted with this work (voluntarily or not) have rarely been acknowledged, although I am pleased to note that there are several such entries in this book.

Rather more amusingly, alphabetical order is strictly observed by species name. This means that Count Branicki is listed under C, Father Basilio is under F, Lady Burton is under L, Miss Riley and Mrs Gray are under M, Père David is under P along with Prince Bernhard, and Queen Charlotte is under Q. There are two appendices equating the vernacular and scientific names but no index; so if you don't know that Branicki was a count then you will have difficulty finding his entry in this book.

Eponyms are usually treated as being honorifics, commemorating the discoverers or collectors of the species, the mentors of the describer, or those who in some other way earned the namer's affection.

That is, they reveal the human face of science. The words "dry" and "dusty" seem to be the most common epithets applied to taxonomy by the media, although it has been pointed out to them many times that dust is actually a major enemy of specimen preservation. Nevertheless, we all know that nomenclature can be a fun place if you only know where to look. To some extent, this book does try to enhance the human reputation of taxonomists, although not nearly enough.

For example, it is well known that eponyms are a good attention-getting device, provided that you pick the "right" person for the eponym. Traditionally, it has been allegedly important people who have dominated these eponyms (e.g. politicians and the nobility), although the book has an intriguingly large number of unexplained (i.e. untraceable) female first-names populating 19th



and early 20th century binomials. In the modern world, on the other hand, alternative aspects of the namer's milieu have come into play. It is likely that the most unexpected names appearing in this particular compendium are *Avahi cleesei* (a lemur) and *Crocidura attila* (a shrew). If we move into the fictional world, in addition to the usual mythological and biblical suspects (45 of them) there are also *Pudu mephistophiles* (a deer), *Synconycteris hobbit* (a bat) and *Thylamys cinderella* (an opossum).

However, it turns out that mammals are the least likely place to look for unusual names (see http://en.wikipedia.org/wiki/List_of_animals_named_after_celebrities), and so a more wide-ranging book would possibly be more interesting. For example, within the arachnids we have *Calponia harrisonfordi*, *Draculoides bramstokeri*, *Heteropoda davidbowie*, *Myrmekiaphila neilyoungi* and *Pachygnatha zappa*. Within the insects there are *Agathidium bushi*, *Agra katewinsletae*, *Agra schwarzeneggeri*, *Anophthalmus hitleri*, *Serratoterga larsoni*, *Strigiphilus garylsoni* and *Pheidole harrisonfordi*. The molluscs have *Bufo naria borisbeckeri* and *Crikey steveirwini*, while the cnidarians have *Phialella zappai* and the crustaceans have *Leucothoe tolkienii*. Returning to the vertebrates, there is a fish called *Zappa confluentus* and an amphibian called *Hyla stingi*. Why Frank Zappa appears so often in this list is yet to be explained.

The plants should not be ignored, with *Maxillaria gorbatchesowii*, and nor should the lichens, with the recently described *Caloplaca obamae*, although these are far more straight-laced than some of the zoological ones. Fossils probably have the greatest number of truly quirky names, including those of singers, actors, movies, commercial companies, comedy groups, and fictional characters and places, along with some excruciating puns (see <http://www.CuriousTaxonomy.net>). Greg Edgecombe and Neal Evenhuis seem to be particular culprits here.

Of course, an eponym is not always an honorific. Obvious insults are officially discouraged (e.g. the current ICZN Code of Ethics states: "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."), so that names like that of *Khrushchevia ridicula*, *Mosasaurus copeanus* and *Phycomyces blakesleeanus* are a bit near the knuckle. However, stories abound of particularly small, ugly or otherwise unsavory species being named after intellectual opponents. The published explanation for the naming of *Shillingsworthia shillingsworthi* is probably the most blatant example ever produced (although the author seems to have invalidated the name in the process).

Whimsical nomenclature extends well beyond eponyms, of course, as there is a long tradition of sly wordplay in taxonomy. I've always enjoyed the wasp name *Preseucoila imallshookupis*; and the origin of the spider genus name *Losdolobus* is as obscure as puns are likely to get, since the pun is not in either Latin or English. My favorite for ingenuity, however, is the tineid moth genus with the formal zoological name: *Petula* Clark, 1971.

Perhaps the most commercially successful example of biological naming is that of *Callicebus aureipalatii*, a Bolivian monkey. GoldenPalace.com, a Canadian web-based casino, reportedly paid \$US650,000 for the publicity when the naming right was auctioned. The money earned from this capital was stated to be used by the Bolivian Wildlife Conservation Society to maintain Madidi National Park.

I'm not suggesting that all books on biological nomenclature should read like Ripley's "Believe It Or Not", but it cannot do any harm to make it clear to the world that taxonomists are human beings. It has never hurt the physical scientists to be seen to have a human face with a sense of humor behind it; and it will be no different for us.

I will close with one direct comparative example between physics and biology. Albert Szent-Gyorgyi tells the story of trying to call a new molecule "ignose" because he did not know its structure but was convinced that it was a sugar (resembling glucose and fructose). The editor rejected this idea, so in his revised manuscript Szent-Gyorgyi called it "godnose". Similarly, Norman Platnick created the segregate genera *Notnops*, *Taintnops* and *Tisentnops* for some Chilean spiders that were originally placed in the genus *Nops*. Scratch any scientist and you will find a real person underneath.

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Beyond Cladistics?

David Morrison
Section for Parasitology (SWEPAR)

Beyond Cladistics: The Branching of a Paradigm. Edited by David M. Williams and Sandra Knapp. 2010. University of California Press, Berkeley. ISBN 978-0-520-26772-5, xiv+330 pp, £44.95 \$65 (hardback). ISBN 978-0-520-94799-3 \$52 (e-book).

In 1977 the rock band Slade released an album called “Whatever Happened to Slade?” This title was a reference to the fact that between 1971 and 1974 they had had 12 consecutive singles in the top four in the U.K. singles chart (an unparalleled feat), but by 1977 they had returned to the obscurity from whence they had once come. In spite of this, the band did continue with the same personnel until the end of 1991 and, indeed, they had six more top-30 hits during their comeback in the 1980s. The band still officially exists today, with two of the four original members.

This seems like a very good metaphor for the history of cladistics, although being half a decade later. That is, it came out of relative obscurity, dominated phylogenetics by the end of the 70s and especially during the early 80s, and then seemed

to disappear again, to be replaced by a somewhat different phylogenetic paradigm. Nevertheless, it does continue to exist today, with a subset of the original proponents plus some younger blood.

This metaphor should not be pushed too far, of course. Slade’s slide from the top of the pile coincided with the emergence of punk rock, which put paid to both glam rock and disco music. (This is a pity, because the uniting theme of early 70s music was that music could be fun, an idea that slipped into relative obscurity during the 80s and 90s.) Cladistics’ fall from grace, on the other hand, seems to be much more self-generated; and it also seems that a widespread comeback, however brief, is unlikely.

This new book, *Beyond Cladistics* edited by David Williams and Sandra Knapp, is a compilation of papers by some of the old guard and some of the young guns of cladistics. It covers the gamut of topics in which cladistics has had (or tried to have) a major influence: phylogenetics, classification, biogeography and conservation. There are few backward-looking articles, but instead the book “represents an attempt to document the nature and anticipate the future of cladistics” [p. xi].

Clearly, I am somewhat sceptical about the second of these stated aims. It seems to me that cladistics faded away for a reason that is clearly stated in Chapter 9 of the book. This is actually