

## The scientific name game

By ARCHBOLD BIOLOGICAL STATION

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A Gopher Tortoise (*Gopherus polyphemus*) munches on some Hairy Indigo (*Indigofera hirsuta*).

DYLAN WINKLER PHOTO

Describing scientific names, Archbold intern Erin Stewart says that they could just as well be termed, “A confusing amalgamation of Greek and Latin words with a sprinkling of surnames thrown in. Biology students are taught that scientific names aid clarity and specificity; however, memorizing them inevitably presents a massive headache come exam time.”

While the use of consistent scientific names for species may aid in the communication of research findings across countries and languages, it can present a barrier to communication between scientists and members of the public. Yet, studied closely, scientific names provide layers of meaning and history. Learning to ‘decode’ such meanings can improve both retention and appreciation of these names.

In some cases, the scientific name of a species actually sounds quite similar to its common name. For example, the first half (the Genus) of the name *Gopherus polyphemus* recalls the 'gopher' in Gopher Tortoise. Meanwhile, the second half of the name (species) references Polyphemus, the one-eyed giant of Greek mythology. Though not one-eyed, gopher tortoises are certainly one of the larger animals frequently spotted in southeastern habitats.

Oftentimes, the connection between a species' scientific name and common name is less obvious and a closer examination of its Greek and Latin roots is necessary. For instance, the name *Eryngium cuneifolium* probably means little to anyone but the most avid botanists of central Florida. However, encoded in the second half of the name are the Latin roots *cuneus*, meaning 'wedge,' and *folium*, meaning 'leaf.' This links directly to the common name of the species: Wedgeleaf Button Snakeroot. The first half of the scientific name, *Eryngium*, derives from the Greek and Latin terms for sea holly, which is the group of plants to which the Wedgeleaf Button Snakeroot belongs.

In other cases, the roots of a scientific name connect not a species' common name, but to its appearance. The name for Florida Scrub-Jays, *Aphelocoma coerulescens*, illustrates this point. The first half, *Aphelocoma*, translates to 'simple hair.' This references the fact that, unlike the closely related Blue Jay and Steller's Jay, scrub-jays lack a feathered head crest. Dr. Reed Bowman, director of Archbold Avian Ecology program added, "Yes, *Aphelocoma* means simple hair, but it may also refer to the lack of banding in the feathers which is common in many other jays." Thus, not only does this term describe scrub-jays, but it also places them in the context of their evolutionary relatives. The second half of the name, *coerulescens*, means dark blue or green—think of the color sky blue or cerulean. This refers to the bluish-gray colors that characterize Florida Scrub-Jays, and other scrub-jays in general.

Sometimes, the scientific name of a species does not contain Greek or Latin roots but is derived from the surname of the researcher who first described the species, or in honor of another prominent researcher in the field, or an individual who supported the work. The ant species *Formica archboldi*, for instance, is named after the late founder of Archbold Biological Station, Richard Archbold. First described by T.C. Schneirla in 1943, the revised description of the ant published in 1950 notes, "This subspecies is named in honor of Richard Archbold, the owner of the Archbold Biological Station, who not only encouraged Dr. Schneirla in a study of the ants of the Station but who showed a special interest in the habits of this particular ant."

Richard Archbold has the honor of having more than 100 species named in his honor, or in recognition of the Archbold Biological Station that he established, many of which are listed on the Archbold web site. ([https://www.archbold-station.org/html/aboutus/r\\_archbold/ra\\_animals.html](https://www.archbold-station.org/html/aboutus/r_archbold/ra_animals.html)).

Erin Stewart added, "Though they may initially appear incomprehensible and hard-to-pronounce, careful consideration of scientific names can prove revealing in terms of the history, appearance, and common names of a species. It can even provide some humor, as when you start thinking of scrub jays as 'simple-haired'

birds.”

Despite the value in knowing and using scientific names, is it not reasonable to expect everyone to learn them. Thus, scientists must work to decode their language when speaking to non-scientists to avoid obscuring important information behind jargon and losing the attention of listeners. A discussion of the etymology of a scientific name is a great place to start.

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