VOL. 79 | NO. 2
FEBRUARY 2017

THE AMERICAN BIOLOGY TEACHER

About Our Cover

The land iguana on the cover, *Conolophus subcristatus*, was photographed on Plaza Sur, one of the many islands making up the Galapagos archipelago. It is one of the smallest of three species (including *C. rodada and C. pallidus*) found on the Galapagos, growing to a length of 3 to 5 feet and weighing up to 25 pounds. They can live to 60 years of age.

The Galapagos Islands are located 600 miles off the coast of Ecuador. They began as sterile lava fields, but the convergence of oceanic currents brought a variety of marine life to each. Evolution took over from there.

Both land and marine iguanas from the Galapagos are descended from a common ancestor that floated out to the islands from South America on rafts of vegetation. Based on analysis of blood proteins, immunologists agree that these two iguanas have been diverging for over 15 million years. The colonization and divergence took place on islands that are no longer visible because they have eroded away and are now submerged.

Land iguanas are poikilotherms, regulating body temperature by absorbing heat from the sun while basking on volcanic rocks. They can live a year or more without fresh water; they obtain moisture from the pads of cactus such as *Opuntia*. The famous Darwin finches also play a role in the life of the iguanas. These two animals have evolved into a mutualistic relationship. The iguanas raise themselves up so that the finches can remove parasites from their bodies, providing relief, while the finches eat the parasites for food.

Charles Darwin described the land iguana as an "ugly animal … with a stupid appearance." Another opinion is that it actually appears a bit devilish and quite regal, with its menacing spiny crests along its back! A highlight of this visit to the Galapagos was when one of these noble creatures ambled right next to the photographer's ankle. On the Galapagos, the animals always have the right of way!

The photographer is Jane Weaver, a retired biology teacher from Norristown Area High School, Norristown, PA (cellmates@aol.com). The photo was taken with a Canon Power Shot SX170.

Contents