

STAMP STORIES

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Journal editors often complain about not having enough informative or interesting articles to fill up their publications. I have often thought of putting together some sort of article after reading their appeals, but somehow other activities always got in the way, or took priority over my time and, the fact is, writing even a short article requires at least a small amount of research lest you make some inadvertent error that causes confusion, or makes you look foolish.

But now as your editor, I find myself facing this same matter that has frustrated my predecessors and the editors of many other publications. That is, how to add a bit more information to our publication and potentially increase reader interest. When the Biology Unit has polled its members about the content of the journal you currently hold, the majority have desired that we maintain the useful checklists on the various topics, since for many of our members, this newsletter provides the only convenient source of that information. However, many respondents also have asked that we try to include other types of articles such as those found in some of the publications of other ATA study units.

Being new to the editorship (and probably ignorant of the difficulties this will entail), I have decided to pick a stamp related to the Biology topic and write a brief article about it. I challenge each reader to do the same and send your article to me for publication in a subsequent edition.

On 12 July 2001, the Central African Republic issued a series of stamps, miniature sheets, and souvenir sheets showing various fauna. Two of the miniature sheets (Scott numbers 1398–99) and four of the souvenir sheets (Scott numbers 1400–03) depicted different species of butterflies. The images were taken from artwork prepared specifically for the stamps and not from photographs, but even so, the depictions were accurate enough for identification.

The Central African Republic has had a checkered history. Formerly, it was the colony of French Equatorial Africa. On 1 December 1958, it became an autonomous territory and proclaimed itself a republic. But this only lasted for 18 years until Jean-Bédél Bokassa (a former army colonel) had himself made Emperor Bokassa I and declared it the Central African Empire. I have noted that one of the main problems with being “Emperor for Life” is that your life does not last as long as you expect. In 1979, Bokassa was overthrown and since that time the country has operated under its Republic name.

But I digress. The subject stamp on which I wish to comment is Scott number 1401, a souvenir sheet containing one 1500F stamp showing a butterfly labeled “*Morpho peleides*” with its wings folded in their rest position clinging to the base of a flower. This is a double design error, as we shall see later on. In the upper margin of the sheet is a male of the species shown with its wings spread in flight.

(See *Stamp Stories*, page 99.)



The Morphos are large butterflies with bright metallic blue coloration on their upper wings. The females are generally larger than the males, but less strikingly colored. As the design shows, the under wings are dull brown with a number of eyespots. When the butterfly closes its wings, it becomes practically invisible in its lowland forest habitat. I recall my first encounter with these butterflies in the wild was in the jungles of Panama. As the males make their lazy flight through the forest canopy, the sun catches their upper wings and causes a sudden blue flash where a second before there nothing visible. It is almost like the flashing light of a police car as it grabs your attention. Unfortunately for the insects, their attractiveness has resulted in widespread hunting for commercial purposes.

It is also interesting to note and surprising to many people that the pigment blue does not occur on a single species of the Lepidoptera, even though there is an entire sub-family of the Lycaenidae that is commonly called the “Blues.” If you look through a magnifier at all butterflies and moths that appear to have blue coloring, you will find that every one of them is actually some shade of brown or other dark, dull color. The blue appearance is caused by the structure and arrangement of the scales on the wing surface that causes scattering or interference of the light waves striking it. A recent study reported by Yale University found a structure known as a gyroid—a complex three-dimensional form that is one of nature’s most efficient ways of folding space—that causes this interference in five species of “Blues.” Gyroids have superior optical properties and the ability to synthesize similar forms could aid in the development of solar cells and insulation for fiber-optic cables.

Some researchers place the Morphos in their own family Morphidae. But modern DNA testing indicates that they are more reasonably a sub-family of the Nymphalidae. The food plants of the larvae consist of various shrubs and creepers. The adults feed exclusively on the juices of rotting fruit or fungi. None visit flowers, so now we spot the first of our stamp design errors. You will never find a Morpho clinging to a flower. The forelegs of the adults are undeveloped and unfit for walking. As you can see in the image, the butterfly correctly is resting on four, not six legs.

The Morphos are entirely a neo-tropical species and range from Mexico through Central America to the Amazon River basin. I suspect the only Morpho that ever made it to the Central African Republic was pinned to a museum tray. Countries that issue stamps for non-native species are a peeve of many topical collectors, who often feel they are seen as a gullible source of revenue for these nations. In fairness to the CAR, they do not claim in their issue that the subjects are local or even African species. Still, there are certainly species in their own region that deserve recognition, even many that have yet to appear on a stamp from anywhere.

Finally we come to the name on the stamp. The Morphos are noted for their wide variety of forms for both sexes. Some forms have mistakenly been described as separate races. Until very recently, *peleides* was recognized as a separate species. But once again due to DNA analysis, researchers have found that it actually is a sub-species of *M. helenor* and it has been thus re-classified. This is the second design error because by the time this stamp was issued this new classification was recognized, and therefore the stamp has the wrong name label. I am again more than willing to cut the designer some slack because it turns out that *M. helenor* has no fewer than 29 recognized sub-species, several of which were previously classified as species in their own right.

Well, we see that there is a lot to learn from a single stamp, as I am certain most of you have already discovered on your own. Again, I invite you to share your own discoveries with your fellow readers.