

AMPHIBIANS ON POSTAGE STAMPS HANDBOOK

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[Ed. note: This article was written for Topical Time, the official journal of the American Topical Association (ATA). Dawn Hamman is First Vice President of the ATA. Both she and Dr. Eichler are members of the Biology Unit. The Biology Unit contributed funds to cover one-half of the publication cost of this handbook.]

Over the past 69 years, the ATA has published many handbooks. Among the best is the most recent, the work of Vic Eichler, *Amphibians on Postage Stamps*.

Until I picked up this colorfully-illustrated book, I didn't know I was interested in amphibians! Vic describes the life cycles of amphibians in an interesting way that is easy for a non-technical person to understand. He introduces his readers to fascinating members of the amphibian family, and shows how stamps educate us about these animals. The book includes a checklist of 1,915 amphibian stamps issued by 212 governments. There are useful indexes and a listing of additional resources for those who wish to further explore this topic. The book's final section shows amphibians on stamps that have been produced from photos, cartoons, and even toys that represent frogs.

I was eager to ask Vic about the path that led him to write the book.

Q. Does your interest in amphibians relate to your career, or an outside interest?

A. I earned bachelor's and master's degrees in zoology from the University of Illinois. For my doctorate, I opted to study with a professor who was well-known for his work on the metamorphosis of amphibians, and how the changes during the transition from a tadpole to a frog are dependent on a hormone from the thyroid gland.

Vic then went on to postdoctoral studies with the National Institutes of Health. He continued his research on amphibians as a faculty member at Wichita State University. He also spent two years as a scientist with NASA, and was on the team that sent a life-science experiment aboard the last Apollo spacecraft, the one that joined with the Russian craft in a joint mission in 1975.

Q. How did you get involved with this handbook project?

A. When I joined ATA eight years ago, I looked to see what stamps were listed for amphibians. ATA handbook #91, *Lower Vertebrates: Fish, Amphibians, and Reptiles of the World*, had very few stamps of amphibians. I let [Executive Director] Vera Felts know that I was willing to do the research to create a new handbook about amphibians on world stamps.

Q. Who will find this book useful?

A. Besides those who collect stamps of a biology nature and, more specifically, those interested in the topic of amphibians, this book will be of interest to people generally interested in amphibians.

Q. Why is this topic important?

A. Amphibians are the animal group that is most seriously threatened with extinction. In the last 20 years, 100 species have become extinct. People of many countries have influenced their governments to emphasize the threatened nature of amphibians. A graph in the book shows that, since the first amphibian stamp was issued in 1945, there has been a dramatic increase in the stamps showing frogs, toads, or salamanders. The numbers are increasing each year.

Q. Why are amphibians important to humans?

A. More than 800 chemicals have been isolated from the secretions of frog skin that have antibiotic, antimicrobial, and antifungal properties. The book outlines



Dr. Vic Eichler



Agalychnis callidryas
STP, 2015, Sc#2887b



Salamandra atra prenjensis
B-H (Croat), 2004, Sc#2887b

many other ways frogs help humans. For example, about ten percent of Nobel prizes given in medicine and physiology have involved research using frogs.

Q. Do you collect topics in addition to amphibians?

A. Because I was a professor of biological sciences, I am interested in a variety of topics related to animals. My favorite animals among the fish are the coelacanths, which were on the line of evolution of amphibians. My favorite stamps of reptiles are of true chameleons from Madagascar. They have many unique features—eyes that move independently, prehensile tail, dramatic color changes.

Q. You worked on this fine book for years. Are you glad it's finished?

A. It's always a thrill to see a manuscript in published form! This is my eleventh book, and I have no plans to jump into another long-term writing project!

Amphibians on Postage Stamps is available from the ATA office and at shows where ATA has a booth. Mail a check to ATA, or send an email to americantopical@msn.com and request *Amphibians*, ATA HB 165 (printed book) or HB 165-E (on DVD). Cost for either version is \$35 (\$30 for ATA members). Add postage: for printed book: \$2.50 US, \$3.50 Canada, \$8 to other countries. Add postage for DVD: \$1.50 US/Canada, \$3.50 to other countries.



Triturus cristatus
Liechtenstein, 2014, Sc#1610

GENETICS ISSUE

On 8 July 2003, Australia Post issued a pair of stamps to commemorate the 50th anniversary of the discovery of one of the secrets of life on Earth—the double helix structure of the DNA molecule.

These stamps also celebrated the 50th meeting of the Genetics Society of Australia.

DNA, which stands for deoxyribose nucleic acid, carries the genetic information within the chromosomes of all living cells.

In 1953, James D. Watson, Francis Crick, and Maurice Wilkins discovered that the structure was formed by two intertwined helical chains composed of nucleotides. For this discovery, the three shared the 1962 Nobel Prize for Physiology or Medicine.

Each nucleotide is composed of one of four nitrogen-containing nucleobases (cytosine [C], guanine [G], adenine [A] or thymine [T]), a sugar called deoxyribose, and a phosphate group. These four letters are printed in light blue across the entire first day envelope and can be seen highlighted in the cachet.

The first stamp shows the DNA double helix molecule. The second stamp shows the chromosomes of a kangaroo undergoing cell division. The stamp designer was Fragile Design of Prahran, Victoria, Australia. The cover design was by Lisa Christensen from the Australia Post Design Studio.



Genetics First Day Cover
Australia, 2003, Sc#2171–72