

## Book Review:

### **SUSAN NEWMAN. Frogs amphibians and their threatened environment. Discovery and expression through Art K-3. Frogs are green**

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It is my strong conviction that science and research are useless without a parallel diffusion and dissemination to people. Indeed, well-known evaluation methods, such as impact factor (IF) and Hirsch (H) indices, are rather good methods established by measuring the quotation of a paper by other (scientific) people, usually scientists in scientific journals. In other words, citation indices still remain in the same “environment”, with a scientific community basically quoting itself. On the opposite, I believe that one of the best and real indicators of a paper (or of man’s career) is the capacity to pass through walls and reach common people, in order to transmit information and provide useful education and instruction. At the end, whether this is done in early or adult age, it does not really matter. Personally, I believe that this can be done in an easiest and most efficient way by specifically addressing to children. As we all know, kids are eager to learn and to understand. Everything. In such a sense, talking to them about amphibians maybe a weird idea, but, at the end, a good proposal indeed, and a good way to address their interests and sensitivities in the future, specially seen the need for new generations to conserve amphibians and their environments (AmphibiaWeb, 2016).

In such a sense the book “built” (not only and not simply written) by Susan Newman is for me a real jewel. In many ways. This book is mainly destined to educators and provides a true roadmap to teach young readers and explorers the love for amphibians. Susan has coped her strong passion for frogs (she is the founder and the promoter of “Frogs are green”, a non profit organisation created in 2009 to bring awareness to what’s happening

on our planet, especially to the fact that frogs everywhere are disappearing: <http://frogsaregreen.org/>) with art. In such a way the aim of the organisation is to give kids the opportunity to learn about the environment, frogs and other amphibians, and to express themselves through art. In this way Susan’s love for science has been put together with the great and somehow innate interest that children (in this case up to the age of 3 years) have for frogs and drawings.

The book chapters (in reality, much more than a simple book, Susan’s work is a sort of handbook: easy to be followed) has been designed directly by Susan (who is a graphic by profession) to give educators a roadmap to teach kids about amphibians, animals that, at the end, are not easy to find in nature and even to spot in zoological parks, although frogs and toads are true characters which often inhabit childhood tales. The pages of the book are full of interesting and correct information, accompanied by a wealth of photographs as well (many of which represents frogs from my beloved Madagascar), with explicit and clear indications about Youtube links where looking at videos. Photos represents animals and environments. Although, of course, frogs are dominant all through the text, many other animal species are represented. This is because the final aim of the book is to talk about environments with the excuse of dealing with amphibians. Frogs depicted in the photos are species with peculiar and fantastic colourations and forms, but also more common species and, in several cases, dead animals, as in the case of chytrid effects. I believe that is really important to show that animals and nature are not only and not always beautiful and attractive, but in many cases suffer of pol-

lution and other kinds of threats. In this ways, kids learn and understand what should be done.

As already said, one of the ways children are driven to understand (maybe love) amphibians pass through art. All through the text kids are asked to draw what they heard and learned. This is really important, since drawing activity becomes a true way to approach the inner feelings and transform the “simple” and sometimes trivial science teaching in a real sentiment for conserving fragile creatures and environments.

The book is structured in six chapters. In the first chapter Susan presents general aspects about frogs and amphibians. This is done with the use of photographs and solicit the small readers to draw using different colours and shapes. Chapter two (The food chain) introduces the variety of ecological adaptations in amphibians using slideshows, videos and discussions. Chapter three (Frog friendly habitats) presents rainforests and other habitats in the world hosting a great variety of amphibians. This argument is much more given in details in Chapter four

(Biodiversity and the Rainforest). In this teachers invite kids to paint themselves as frogs. In Chapter five (Reproduction & care of young) the variety of breeding modes and development is illustrated in detail, soliciting the surprise of young people using videos and links. Finally, in Chapter six (Threats to survival), amphibians are presented as fragile organisms and major threats are discussed using photos, videos and direct explanations.

At the end, Susan’s book turns out to be an interesting experiment where passion for animals goes together with education. This is something that researchers and academics should always take in mind when doing science: conservation, in a changing world, is possibly the first target. And passes always through comprehension and understanding.

#### REFERENCES

AmphibiaWeb (2016): AmphibiaWeb: Information on amphibian biology and conservation. Berkeley.