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Paleobiology

How Many Species concepts are there? By John Wilkins (2010)

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**Article Summary**

The author begins with a seemingly simple question: What is a species? Although it is a term that has been defined in science classes for many ages, Wilkins argues that there are many concepts that attempt to define what a species is. These few concepts describe how we identify species – using morphology, biospecies or evospecies. The author uses the examples of lions and tigers ability to breed with one another – even though they do not in the wild – to define his term reproductive reach with ecological adaptation. Wilkins then argues that there is merely one species concept, a general notion of what a species is, and many other species conceptions, or the way species are regarded, defined, or distinguished as. The many conceptions define the overall species concept. This is supported by Darwin’s notion of species – that there is “no single set of properties a species had to have”. We can identify species based on family resemblance rather than checking off qualifications on a check list. Wilkin’s explanation to species is this: there is one species concept, two explanations of why species are species, and seven different definitions of species, with twenty-seven variations.

**Things you liked about the paper**

I enjoyed the author’s description of reproductive reach with the example of lions and tigers interbreeding. It is using the reader’s everyday knowledge of species to define a new term clearly and precisely. The background on Charles Darwin and his ideas of what is a species is useful for supporting the author’s argument. It shows that even though we have added additional notions and ideas of what a species is, they are still part of that original concept first relayed by Darwin.

**Things you did not like about the paper**

The author of this paper begins with a lot of information and definitions, but does not do a good job of stating the specifics between the different species concepts. I would have preferred a more in-depth look into each species concept, so that I would be able to agree or disagree with the author, rather than taking his word for it. I also would have like the authors own definitions of concept and conceptions, which I believe can be used nearly interchangeably in the English language. Making a clearer explanation of why these two things are so different would help emphasize the point the author is attempting to convey with this paper. I personally enjoyed reading about Charles Darwin and his thoughts on the concept of species. Adding additional background history and the first constructs of what is a species would help solidify the author’s argument still more.

**Evaluate the graphs and figures (if any)**

(none)