

Summary Write Up of the DGAG Talk Tuesday 21 Mar 2023.

What is a species?

Speaker: Dr. John Whicher

Our first talk on the new day (Tuesday) of the week in our new venue was a treat enjoyed by some 22 attendees. Tea, coffee and a few biscuits were also savoured.

As promised John delivered a truly fascinating talk with many slide illustrations and some humorous interludes that had the audience transfixed despite the complexity of the topic.

Unfortunately not possible to simply produce a PDF copy of the slides without the author to explain them and their context, so future presentations may be a request from those who missed the talk!

Below is my attempt at a summary from some rapidly scribbled notes, hopefully to whet appetites for future meetings perhaps. However, for those wishing an immediate “deep dive” and read into the subject the following reference is a good start (Ed.):

Donald R. Prothero. 2004. “Bringing Fossils to Life . An Introduction to Paleobiology”. 2nd Edition. Published by McGraw-Hill.

We all learnt that modern DNA technology has thrown into considerable disarray the previous “body description, reproduction, biological species” methods/concepts of classifying families and groups of organisms and indeed species. This hints at even more complexity for the fossils (Palaeontology) we deal with that do not have the DNA material to confirm interpreted species connections. A few quotes and names of pioneers on the trail of species investigation were mentioned as context to the title of the talk question: ranging from Darwin “ ..we do not know what a species is” , Aristotle 384-322BC “...clusters of animals” , Linnaeus using observable characteristics (1735) and Systema Naturae 10th Edition 1758 . John recommended a field trip to the North edge of Gotland Island to study the fossils that Linnaeus found there.

Other key historical figures mentioned were Lamarck “ species could change by passing on acquired traits” . Mendel, Dobzhansky and Earnst Mayr “reproductive isolation”. Henning with “Cladistics – shared characteristics can be traced to most recent ancestor”.

So the talk ended with one of the key “takeaways” that genetic polymorphism (errors accumulating in genetic code of all living things) is a vast topic and is now giving species identification so much more complexity than ever before. Several questions and much discussion followed the presentation concluding and audience appreciated very much the speakers talk.

The next talk will again be at the Dorford Centre* on the Tuesday 18th April and **“Why do all brachiopods look the same?”** promises to be a particularly innovative with the added bonus of some 3D hands on models to examine. Details are in the DGAG website of all future events and also in the DGAG group Facebook and will also be in the newsletter and also advertised on third party websites:

In Dorset

<https://indorset.com/events/>

Discover Dorchester

<https://discoverdorchester.co.uk/events/>

Chris Webb

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