

Anus is no laughing matter: How unlikely organ shaped animal evolution

The anus is one of the most important parts of many animals; an essential structure that changes how an organism's digestive system works. But intriguingly, not all animals have one. Some have simple versions, others have many, while a few organisms uniquely appear to have transient anuses, which come and go. Others have anuses that are... how shall we put it... multifunctional?

But those that do have an anus, an organ we can't help but smirk and joke about, have vastly improved digestion. They can eat and grow more effectively, and reach much larger sizes. And the story of the origin of the anus is actually a story about how animals evolved, diverged from one another, and became sophisticated creatures.

The review into the evolutionary origins and development of the anus is published in the journal [Zoologischer Anzeiger – A Journal of Comparative Zoology](#).

Molecular biologist Dr Andreas Hejnol and Dr Chema Martín-Durán, of the University of Bergen, Norway undertook the research in part, because no one else had. Over recent years, scientists have been able to study how genes affect the development of a range of species.

“That revived the interest in the origin of our organ systems. Where did brains come from? How did blood evolve?” Dr Hejnol told BBC Earth. “But while several organ systems have been investigated, such as the nervous system, the anal opening has been largely neglected.”

But through evolution, the anus has appeared in many forms, occasionally disappearing again. “It is a fascinating subject to investigate how changes on the molecular level during evolution led to the shaping of this part of the gut,” says Dr Hejnol.

Read full, original article: [The extraordinary evolution of our most embarrassing organ](#)