Nannotax – bibliography project, and other updates

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The Nannotax website was officially launched in something close to its current form at the INA 13 conference in Washington in 2013. Since then it has both become the prime online resource for the taxonomy of living and fossil coccolithophores and has also been continuously developed, expanded and updated. This was a lockdown-compatible activity and so continued through the last years. General updates since the last INA conference in 2019 have included adding around 5000 more images, from about 150 publications, 200 new taxon descriptions in the Farinacci & Howe catalog and many edits to the main database. Three significant changes to the data structure and capability have also been made and these will be outlined in this talk.

1. *Image sorting and searching*. Images are now classified by image type - such SEM - distal, SEM - coccosphere, LM - coccosphere, etc. This is used to sort images on the pages. In parallel new image search tools have been developed. Together these allow the increasingly large collections of images for single taxa to be used for research.

2. *Advanced search*. The original advanced search system introduced in 2017 was based on a very large vocabulary of descriptive terms and did not prove very useful or popular. This has now been replaced by a simpler set of terms with a graphic interface which is, hopefully, quicker and easier to use but still allows rapid narrowing of the field of possible identifications.

3. *Expanded bibliography and PDF collection*. This has been a major project, carried out with Baptiste Suchéras-Marx, Shijun Jiang and Ines Galović. The objective was to develop a rather comprehensive bibliography of the literature on nannofossils and nannoplankton and a linked PDF collection. This required improved databasing of the bibliography, databasing of copyright/open access status of journals, developing new scripts to link PDFs to references. In parallel bibliographies and PDF collections from multiple sources were merged, and cleansed. As a result, the Nannotax bibliography now contains 4,630 references (vs 1,900 in 2019) with PDF copies of 3,400 of them.