

Construction of an image database for marine ciliates in Naples bay

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To share the information on ciliate taxonomy and diversity, we have started to construct our original image database. More than 2,000 images of 87 fixed and 36 living preparations, from various samples at Naples bay, have been digitally archived. The images of living preparations contain the information of living status of the particular specimen. Fixed preparations make it possible to obtain a higher resolution of the microscopic images, some particular staining results. We have also implemented the virtual microscopic view of fixed preparations in which the three-dimensional structure can be reproduced by using focus animation. However those preparations have not enough information for the complete identification, we have created the preparation table independent from the taxonomy. The taxonomical knowledge, summarized by Kahl (1930-1935), has been organized as the taxonomy-table, which contains scientific names, descriptions, and line drawings. Then the relationships between the prep- and taxonomy-tables, indicating the possible candidate species names for each preparation, have been created. Using this strategy, it becomes possible to accept several kinds of taxonomical systems for each preparation.