Movie and digital microphotographs database of the soil ciliates

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SUMMARY

Soil ciliates may play some important roles in soil ecosystems. Several methods for analyzing and estimating the ciliate fauna and their biomasses have been reported, but these methods have various shortcomings. We previously proposed a method, MPN-SIPs, to overcome those shortcomings (Takahashi et al., 2003). In this method, each living ciliate detected in a soil sample has to be identified under the light microscope. However, it is very difficult to observe the taxonomic criteria of a living ciliate. To reduce the difficulty, we have now constructed a database of movies and digital photomicrographs of soil ciliates. A special feature of this database is the classification of living soil ciliates into 15 types, using outline images. The database enables the user to compare the outline image of an observed ciliate to 15 outline images in the database in order to identify a living ciliate. The database is now available at http://tdb.knaes.affrc.go.jp/tdb.