

THE IMPORTANCE OF USING CORRECT DESCRIPTIVE TERMINOLOGY AND AN INTRODUCTION TO DIATERM – DEVELOPING A REVISED GLOSSARY OF TERMINOLOGY FOR DIATOMISTS.

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Over the course of time all disciplines develop their own specialised vocabulary to describe observations and concepts, the study of diatoms being no exception. Whereas some descriptive conventions have changed, e.g. primary and secondary or side and face, versus girdle and valve view, others have been retained more or less unchanged, e.g. striae, raphe, valve, frustule. By the mid 20th century, despite linguistic variations, the terms in use for light microscopical descriptions of cleaned diatoms were largely consistent and readily understood across languages. However, with the development of electron microscopy and the discovery of another scale of variation in diatoms, many new terms were introduced to describe ultrastructural features. It also became clear that apparently similar LM features could have contrasting ultrastructure.

Since, despite the development of molecular techniques, morphological characters continue to underpin diatom taxonomy and systematics, and inferences about relationships are made on the basis of shared (usually ultrastructural) characters, it is critical that terminology is applied precisely and consistently. Inaccurate terminology not only produces confusion but can also lead to incorrect inferences of relationships.

Diaterm is a recent international initiative to review existing diatom terminology and produce a revised, highly illustrated glossary that can be used by all diatomists. It builds on previous terminology publications but will also review and evaluate all subsequently published terms, in order to develop a rational and practical descriptive vocabulary. Any rejection of duplicate or inappropriate terminology, as well as the introduction of new terms, will be justified and explained.