

Sigrïd BERGER

Photo-Atlas of living Dasycladales



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"D p t l gal   parution"

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**Carnets de G ologie
(2006: Livre 2 - Book 2)**

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Forewords

Dasycladales, from whichever point of view they are observed, biological or paleontological, never lack in surprises for their elegant structural simplicity is associated with an extraordinary morphological plasticity. This is why their study is so exciting and compelling for those who have a regard for these algae.

During 540 million years of evolution, periods of crisis or stagnation followed others of sudden diversification at both generic and specific levels. Their persistence in the paleontological record as autotrophic marine organisms linked to well-defined ecological conditions make Dasycladales a potentially valuable tool for the recognition of global changes on Earth during the whole of the Phanerozoic. On the other hand, the preservation and occurrence of dasycladaleans as fossils depend strictly on the presence of a calcified envelope which varies in occurrence or degree of development from species to species as well as from one growth stage to another. It is a common experience for the paleophycologist that parts of the fossil alga cannot be observed because they have not been calcified. As a consequence the systematics of fossil Dasycladales leaves open to interpretation (the function of laterals, vestibules, *etc.*). It is only through a continuous comparison to living counterparts that cannot be disregarded, and becomes more and more delicate on moving from the Cenozoic to Paleozoic, that can provide a measure by which the reliability of an interpretation can be judged. This is why the Sigrid BERGER'S ***Photo-Atlas of living Dasycladales*** is most welcome. This contribution not only adds useability to the previous elegant BERGER & KAEVER'S (1992) volume, but integrates that work with new spectacular photos and details as well as an updated systematic scheme and a selected bibliography. The ***Photo-Atlas of living Dasycladales*** is a helpful, easy-to-use tool to introduce biologists and paleontologists to the Dasyclad-world and to stimulate their interest in it. Moreover the electronic format will surely allow a broader public to become familiar with the extant dasycladaleans or to update their databases.

I think that I express the sentiments of all phycologists and paleophycologists in thanking sincerely the Author for having made available to the scientific community her rich photographic documentation and Bruno GRANIER for his precious, steadfast efforts to promote the knowledge of Dasycladales through his employment of the web.

Prof. Filippo BARATTOLO

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