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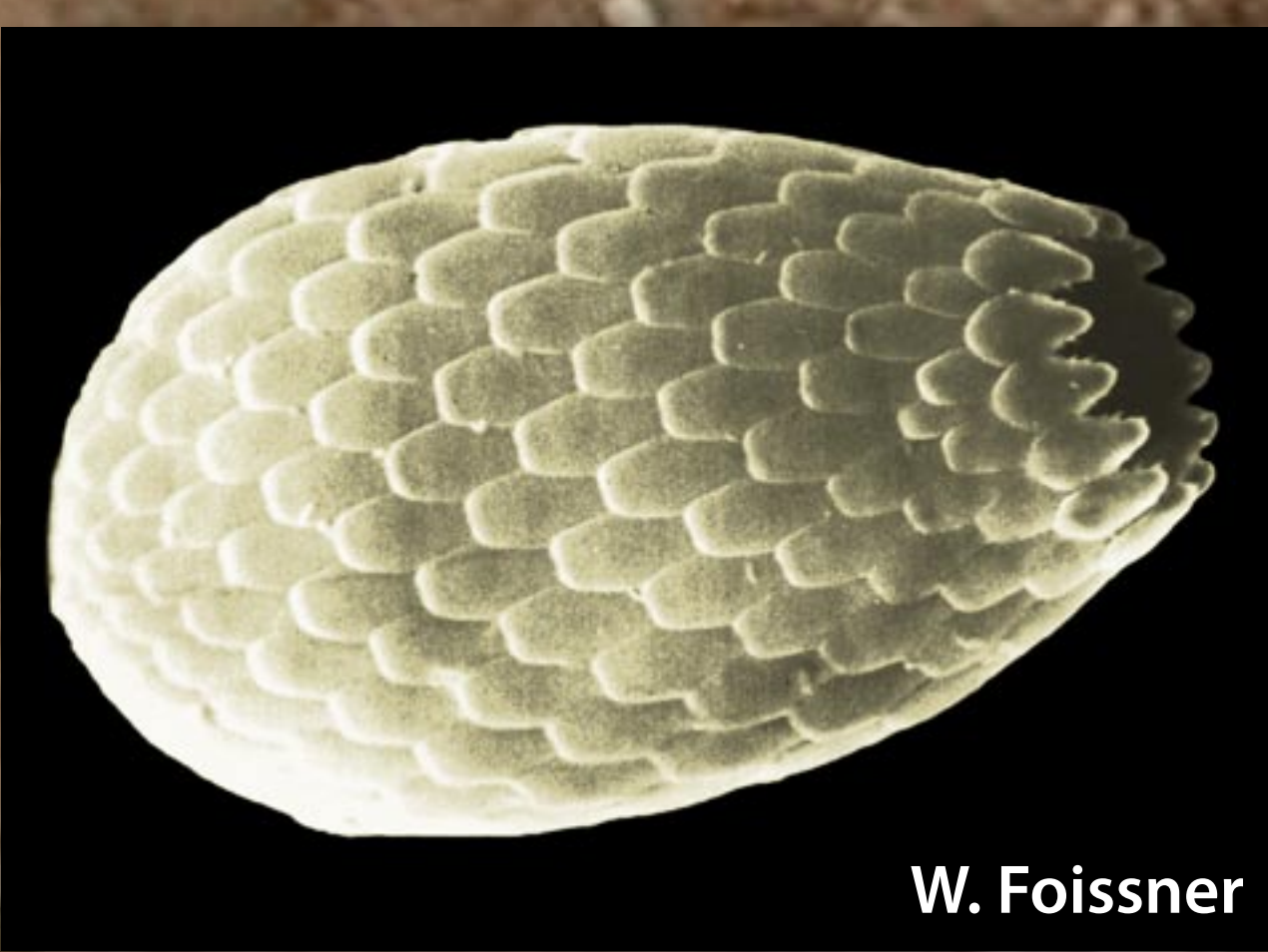
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The soil system is extremely complex and varies greatly both temporally and spatially. Soil itself consists of a mineral portion - containing mainly silica and a mixture of trace metals, an organic matter portion - containing a large variety of different organic compounds, and a vast array of different organisms, as well as water in all but the driest soils.

Soils vary in texture, meaning they can have different proportions of clay, silt and sand. The level of organic matter content varies both with depth (generally decreasing with depth), and spatially. Soil can contain areas which are relatively dry, down to micropores which are almost always water filled, apart from in times of extreme drought.

This high level of heterogeneity within soil means that there are an extremely large number of ecological niches. These have lead to the development of staggering array of biodiversity which can be found below ground. A small sample of this bio-diversity is shown above (organisms are not to scale).

It is often said that more than half the world's estimated 10 million species of plant, animal and insects live in the tropical rainforests. However, when this approach is applied to soil, the level of diversity is often in the range of hundreds of thousands to possibly millions of species living in just one handful of grassland soil!

THE MULTIPLE FACES OF SOIL BIODIVERSITY