

### 30. *Calcivascularis* Wiegand (1984)

**Type species:** *Calcivascularis jansae* n. sp.

**Diagnosis:** A basket-shaped nannolith filled with a core consisting of many radially arranged elements.

**Description:** The basket is shaped like a laterally compressed, truncated cone. Slightly elliptical in cross-section, it flares somewhat distally from the flat, truncated proximal end. The basket appears to be constructed of approximately 12 lath-shaped elements (the exact number is difficult to determine from existing electron micrographs). The laths are essentially rectangular in shape, although a few widen towards the distal end to accommodate the geometry of the basket. The core, housed within the basket, is constructed of several superimposed cycles, each composed of 15-20 elongate radial elements which extend to the periphery of the basket. Each cycle is slightly offset from the others. The overall appearance of the core is that of a stack of wagon wheels with spokes but no rims, the spokes of each wheel being slightly offset from the others in the stack.

**Remarks:** At present, this is a monotypic genus. *Calcivascularis* n. gen. appears similar to *Conusphaera* (Trejo, 1969), especially when viewed in the light microscope. Both genera are shaped like a truncated cone, and have elongated, rectangular outer cover laths (or plates) that appear as lamellae when viewed in cross-polarized light. When these laths are absent, the central structure of the two genera may most easily be observed on the scanning electron microscope, thus revealing the primary difference between them. The difference is that *Calcivascularis* has a stack of offset radial spokes composing the core, while *Conusphaera* has two concentric sets of elongate, flat laths radially arranged and twisted in a spiral about the center of the nannofossil. The known ranges of these nannofossils do not overlap, since *Calcivascularis* is found in the Lower Jurassic and *Conusphaera* occurs in the Upper Jurassic and Lower Cretaceous. *Calcivascularis* is also similar to *Calcicalathina* (Thierstein, 1971) in that both have an elliptical basket filled with calcite crystals and a flat or nearly flat proximal side. The differences between the two genera are: 1) *Calcivascularis* has radial elements stacked upon one another within the basket while *Calcicalathina* is filled by what appear to be randomly oriented crystals; 2) *Calcicalathina*'s core elements extend beyond the distal margin, whereas the core of *Calcivascularis* can either be protruding or be housed entirely within the basket. The known ranges of the nannofossils are different with *Calcivascularis* being found in the Lower Jurassic and *Calcicalathina* occurring only in the Lower Cretaceous.

Wiegand, G.E., 1984. Two New Genera of Calcareous Nannofossils from the Lower Jurassic. *Journal of Paleontology*, **58(4)**: 1151-1155