

Geodesic fungus

by Ed Parker

What do Buckminster Fuller, soccer and fungus have in common? This question was prompted by a strange structural form appearing out of a herb garden in suburban Westlake in January. The answer lies in the wonders of 3-D geometry...

It was observed early in the morning, this weird but wonderful 'thing', shaded from the morning sun. A spherical shape, nearly the size of a tennis ball, with an open lattice-like structure, coloured a vivid red ... what was this unusual occurrence in the familiar garden surrounds?

On closer inspection, it was noticed that the specimen had an open, spherical, geodesic dome structure of hexagons and pentagons, and was hollow inside.

The colouring of the 'struts' was a rich, dark brick red for the upper 60% of the diameter, progressively blending through orange to a pale yellow/white at its base. The base was loosely sitting in or connected to a whitish 'shell' which sat at the surface of the soil.

While we were watching in awe the sun's rays arrived, and it started to collapse.

The struts had a partial coating of a brown exudate which smelled unpleasant and attracted flies. The exudate increased in volume as the collapse progressed.

Within about an hour the structure had virtually completely collapsed, the struts having shrivelled completely, as more exudate appeared. Ants and flies were attracted to the messy exudate.

Subsequently we learned that we had observed was most of the life cycle of an Australian fungus which goes by the name *Clathrus pusillus*.

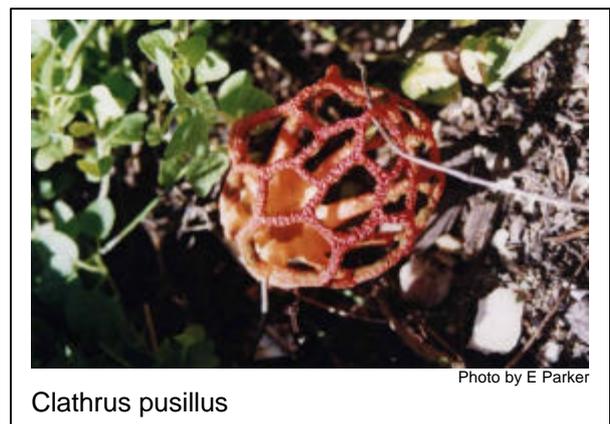
The brown ooze, or exudate, which emerged as the structure collapsed attracts flies (and ants) and this is what assists in spreading the fungus' spores.

Identification was confirmed by reference to the authoritative text by Dr Tony Young, "Common Australian Fungi" (NSW University Press, 1998).

Oh, and as for the other connections?

Well Buckminster Fuller, the designer, popularised the use of geodesic domes. And a soccer ball has the same shape as this fungus - made up of hexagons and pentagons, a structure mathematically entitled a 'truncated icosahedron'.

For further details on this fungus, see: <http://www.ozemail.com.au/~eparker/fungus>.



This regular Nature Watch column is contributed by your local Centenary bushland care groups.

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