24. MYCOPHAGY (FUNGUS CONSUMPTION) BY MAMMALS IN THE SOUTH WEST OF WESTERN AUSTRALIA

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Hypogean fungi play a vital role in many ecosystems. Occurring as symbionts with the roots of higher plants, they are intimately involved in nutrient and energy cycling. Such subterranean-fruiting fungi depend on animal mycophagy for spore dispersal.

In the South West many hypogean fungi, mostly basidiomycetes, occur in a wide variety of habitats. These fungi are an important food source for many species of animals which in turn are the vectors of spores from their subterranean-fruiting bodies.

The importance of fungi as an item in the diet of animals varies with the species and within one species it may differ from place to place. In one study of a small macropod marsupial, the woylie, (Bettongia penicillata) fungi were found to comprise a major part of their diet. A variety of species provided a constant and reliable food source throughout the year. Species availability showed a typical bimodal fruiting pattern, peaking during warm, moist spring and autumn months. Sporocarps of certain genera, notably Mesophellia, were available in a dried state, throughout the summer months. In dry sclerophyll forest, a secondary factor, fire, may influence the productivity of some species of fungi.