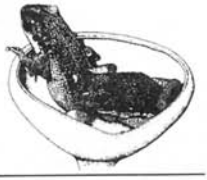
FUNGI IN SCHOOLS

for
CHILDREN
TEACHERS
PARENTS

and other interested parties



SPORES AND SPLASHES

The picture shows Bird's Nest Fungi and Puff-balls which look very different but the spores in both groups are dispersed by raindrops.

Puff-balls are easily found each autumn in woods and fields. Young ones are white inside, middle-aged ones are yellow, while old ones contain a mass of powdery brown spores. These are released through a small hole or irregular tear in the top of the puff-ball.

Bird's Nest Fungi are also fairly common but because they are small and inconspicuous (1 cm or less high) they are not so easy to find. Look for them on the ground, on pieces of rotten wood, old stumps or in other peoples' baskets, if you are on a Foray, as someone usually finds a few.

Raindrops *puff* the spores away from a Puff-ball and *splash* those from the Bird's Nest. You can demonstrate this for a Puff-ball quite easily. Fix a fruitbody, full of spores, in an upright position beneath a slow dripping tap. An outside tap is usually best as it is higher from the ground and therefore has a more powerful drip. Make sure this falls just to one side of the hole at the top and then watch. Each time the drop hits the puff-ball a small cloud of spores will come from the hole. According to Prof. Ingold* if you are very skilled you can produce rings of spores just as a smoker can make smoke rings. The puff-ball chosen for the experiment had a small apical hole and would be a *Lycoperdon* sp., as in Fig. F. The *Calvatia* in Fig. E looks similar when it is young but very different when it is old. The top splits or tears open in a very irregular way. This is shown clearly on p. 127 of *The Mycologist* (July 1989).

The raindrops act differently in dispersing spores from the Bird's Nest Fungus. They fall into the nest and the eggs (each of which contains many spores) are splashed out. They are sticky and become attached to the nearby vegetation. The large raindrops which fall from a tree canopy are probably the most effective in dislodging the eggs from their nest. It is difficult to arrange a drip falling from a similar height AND persuade it to fall into the nest. At least I have found it so - your aim may be better.

Sheila M Francis

Next time: Tar Spot

* C T Ingold (1981). *The Biology of Fungi*. Hutchinson.

Bird's Nest Fungi (A) *Cyathus stercoreus*; (B) *C. olla*; (C) *C. striatus*; (D) *Crucibulum laeve*. Puff-balls (E) *Calvatia excipuliformis*; (F) *Lycoperdon echinatum*. (BMS Slide Collection).