FUNGI IN SCHOOLS

for
CHILDREN
TEACHERS
PARENTS

and other interested parties

FUNGUS FORAY 4

In 1942 Prof C T Ingold published an account of some fungi that he had found on decaying alder leaves lying at the bottom of a stream. This discovery was to open a whole new world of interest to mycologists and in the ensuing 40 years countless streams, and leaves, the world over have been examined and much information gathered about these strange and beautiful fungi.

The technique described by Prof Ingold is very simple. Choose a clear fast-flowing stream running through woods of broad-leaved trees, take leaves from the bed of the stream and put them at once into plastic bags. Leaves of the alder *(Alnus)*, willow *(Salix)* and oak *(Quercus)* are usually the most productive and they should be dark brown and becoming soft. At home give each leaf a good wash under the tap and put each one, separately, in a dish and cover with a little water (a ½ Petri-dish is ideal). Leave for 24h in a cool room temperature. The whole dish can then be put onto the stage of a microscope and examined under low power (16mm objective). Look especially at the leaf stalk and the edge of the leaf where the spores usually develop on short stalks. The spores are colourless and of many strange and weird shapes, worm-like or branched. The develop under water and do not germinate in suspension, only when they come to rest on a solid surface. You may see germinating spores if you focus onto the bottom of the dish. The figure shows some of the spores that you may find. The foam that forms below water-falls or behind slight obstructions in a stream may be a good source of spores as they become trapped in the air bubbles. November and December are the best hunting months although they can be found throughout the year — but in much smaller numbers.

The mycological name for these fungi is 'Aquatic Hyphomycetes' but to honour Prof Ingold they are now referred to as 'Ingoldian' fungi.

Sheila M Francis

Next time: 'Measure a spore'

The illustrations used in the figure were kindly provided by Prof J Webster from his book *'Introduction to Fungi'* and an article by Descals, E & Webster, J, *Conidial Fungi in Freshwater Habitats.*