

The Collembola, being all very soft-bodied, must be handled with great delicacy to avoid injuring them. The best implement for the purpose is the fine red sable brush used for oil painting, American size No. 1, (English size 00 or 0), preferably of the round shape, but the flat will do. The long handles may be cut down to a length of three or four inches convenient for the pocket or vial case. In a pinch an emergency brush can be made by chewing the end of a small succulent twig into fibres.

A great many Collembolans live under the bark of more or less rotten logs and stumps, and when collecting in this habitat a large pocket knife is very useful to separate the layers of bark. Also the student, unless he has exceptional eyesight, will find a watchmaker's glass necessary to discover the smaller specimens. A glass of two and a half inch or at most two inch focus is strong enough. Any higher magnification leaves too small a working distance. To prevent dewing of the glass in cool weather, two or three holes of about 4 mm. diameter should be bored through the mounting.

As any small object dropped into forest litter or long grass is very hard to find, I tie the collecting brush and the watchmaker's glass at either end of a fine string about 18 inches long. This insures their safety, leaves the hands free, and enables the brush to be found without taking the eye off the quarry. Of course, like every other good thing, the arrangement has its drawbacks. But when the cord catches on some obstruction just as a particularly fine specimen has been sighted, and the glass is jerked out of the collector's eye, curses both loud and deep will be found to afford considerable relief to many temperments.

The very ingenious collector devised by Berlese is an admirable instrument for automatically extracting springtails and other small creatures from the debris of forests and such like materials. But for adequate results the apparatus must be employed on a larger scale than is possible for an amateur without any special laboratory. And so, while I have used a small Berlese collector with some success, I prefer to sift for the insects in the open. My sieve consists of a wooden hoop 12 inches in diameter and one inch deep, to which is attached a sleeve of ticking about 10 inches long, while the netting is wire cloth of 12 meshes to the inch. A black silk handkerchief and a white linen one complete the outfit. In practice, one sits down in a likely place, puts a couple of handfuls of dead leaves into the sieve and shakes it over the handkerchief spread on the knees. Then by means of the brush, the dislodged Collembolans are transferred to a vial. Changing occasionally from the black to the white handkerchief, or vice versa, often reveals many minute and unsuspected insects of the contrasting hue.

For springtails of a different milieu a very useful device is a tin funnel $3\frac{1}{2}$ inches or 4 inches in diameter at the mouth, such as can be bought at any hardware store for a few cents. A fair-sized, straight-sided bottle is corked to the tip of the funnel, and the implement is used to sweep herbage, the surface of pools, wet sand and similar formations. The leaping insects are caught in the funnel, and a sharp tap from time to time shakes them from the slippery sides into the bottle. Also the easiest way to capture specimens on loose pieces of bark is to shake them off into the funnel. And the catch can be safely transferred from the funnel bottle to the regular collecting tube by inserting the