



About 2.4 percent of Antarctica's surface, equivalent to a little larger than New Zealand, is ice-free and hosts terrestrial life such as these lichens on the South Orkney Islands (top) and Ross Island (bottom).

Different World

Let us go for a wander through one of these areas and see what evidence of life we can find. Leaving our campsite we walk across an area of dry, sandy gravel and weave our way between rocks and boulders. We are not yet attuned to this new world which is so different to the one we are used to, not a sign of life can be seen, at first. Then, a few stain-like marks on the surface of a boulder catch our eye. Bending down for a closer look we see that we have found a lichen, forming a circular crust over the rock. This plant is a combination of a fungus and an alga helping one another to survive in these extremely dry conditions.

One of our companions is interested in collecting a few rocks and he strikes a boulder with a hammer to break off a fragment. To our surprise this reveals the presence of a green layer just below the rock surface. We have found millions of microscopic plants living in the minute spaces between the rock crystals. In fact these algae could be the most widespread plant life on the whole continent; hidden away until the sur-

face rock is removed.

A gleaming white quartz stone lying on the dark surface of the sandy ground attracts our attention. Picking it up, we uncover more of the hidden life of this remarkable place. The stone is acting like a miniature greenhouse! Light can penetrate through this type of rock and underneath the stone a little water is conserved — perfect conditions for the growth of more algae!

Peering at the green crusts with a magnifying glass, a sharp-eyed person notices some movement — animals with legs! One beast has red legs and a purple body. It is a mite less than a millimetre long browsing on the algae. A second beast is slightly longer and thinner and all of a sudden it disappears as it leaps through the air — a "springtail" or "collembolan" has just escaped!

An Antarctic Jungle

Further down our valley there are a few small snowdrifts remaining from winter. We walk over to one of these hoping to find

some larger plants where meltwater percolates over the ground. We are not disappointed as we have discovered what in Antarctic terms is a veritable jungle. But no machete is needed here as the tallest plant is a mere centimetre high. The tiny, leafy stems of mosses are packed closely together to form a few cushion-like growths. Also, on the surrounding boulders are more lichens but some of these have a bushy appearance whilst others resemble small crumpled pieces of dark paper loosely attached to the rock.

Where the ground is soaked with melt there are dark, jelly-like lumps and orange leathery sheets covering the sand. We have to use a hand-held microscope to see what is in these. Magnifying our samples by four hundred times reveals hair-like filaments. These are "blue-green algae", very primitive plants which look similar to fossils of the first plants to evolve on our planet some three thousand million years ago. And yes, there are animals living here too. A worm-like "nematode" is thrashing from side to side and a most unusual eight-legged beast