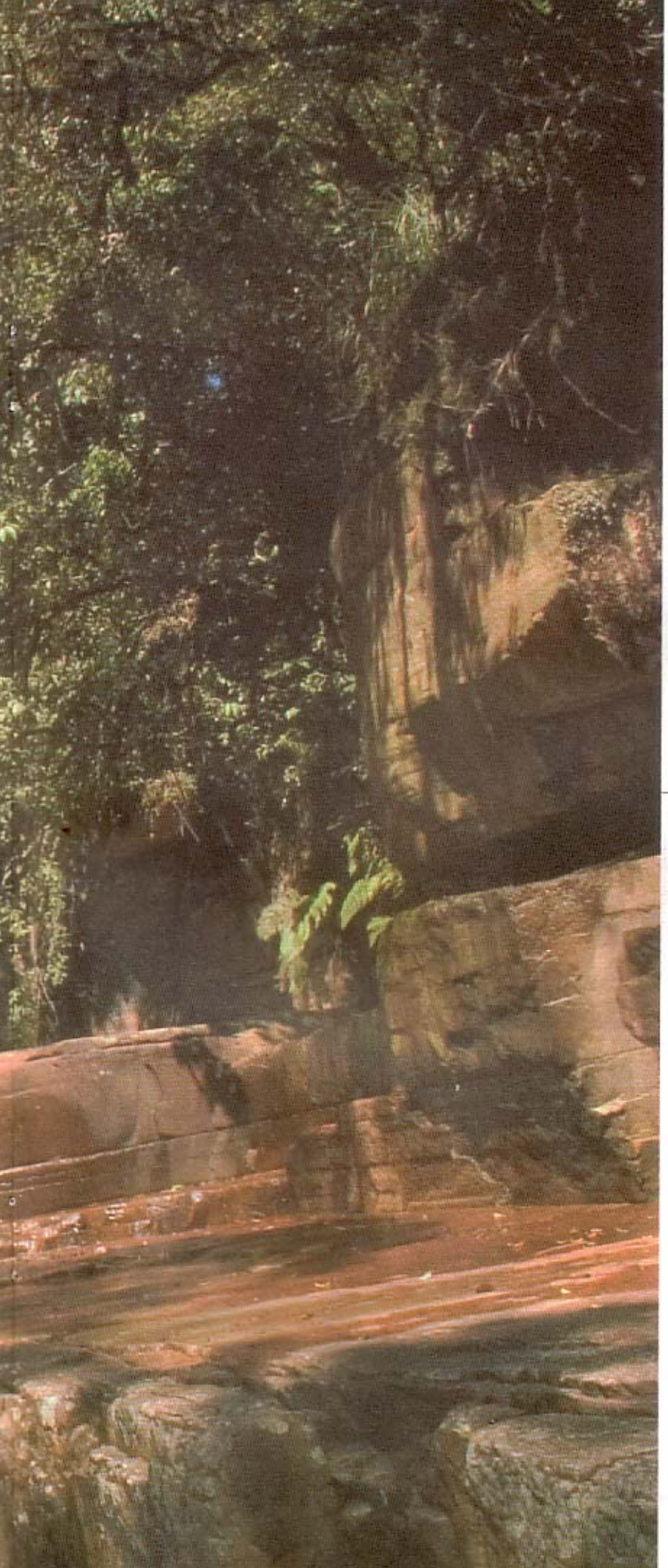
(SABAH)

The Ulu Padas forest region covers altitudes from 700m to over 2200m. Riverine forest along the Padas Gorge, Parsia and Matang rivers and their tributaries offer a rich habitat for orchids such as the stunning *Spathogloltis aurea*, opposite page.



THE SECRET GARDEN OF ULU PADAS

A paradise for orchids and rich biodiversity – but over-logging is fast decimating this beautiful fragile forest.

AFTER 3 OR 4 HOURS of bumping along a gravel road from Sipitang, you have to stop in front of a wooden gate. There, a sign tells you to close the gate after you have passed through – because '*Buffalos eat rice from the fields*'. And after another few hundred meters, you reach as far as you can on this road – and that is actually one of the charming things about this place. In front of you lies the green and beautiful Long Pasia – 'the village at the end of the road' – and behind the village are the last remaining untouched forests of Ulu Padas.

This montane forest area supplies the local communities with meat and fresh vegetables everyday all year round. The still very clear upper part of the rivers are the source of delicious fish, and the forest covered mountains give clear drinking water to the inhabitants in Long Pasia and Long Mio. On top of this, the unequalled forests in Ulu Padas are very high in biodiversity and endemism.

TEXT AND PHOTOGRAPHS *by* LENE TOPP

ULU PADAS IS DOTTED with patches of heath forest or kerangas – a forest type characterized by having soil with very low nutrients. In spite of this, it is an absolute heaven for people interested in plants. The fact is that even though the soil is poor in the kerangas forest, it does not mean that it is a barren or uninteresting forest. On the contrary, the plants in this kind of forest have adjusted to the harsh environment over hundreds and thousands of years. There is a myriad of beautiful and colourful plants that have developed intricate ways for obtaining nutrition other than from the soil.

In the kerangas forest, you will find plants that are directly feeding off insects. The pitcher plant, or nepenthes, is a good example. With each of its leaves ending in a pitcher, the nepenthes invites insects to enjoy nectar on the edge of the pitcher – but every now and then, one of the insects gets sacrificed when it drops inside. The fluid rich in enzymes within the pitcher chamber dissolves the fallen victim and feeds the plant.

Other plants in the kerangas forest have a more friendly relationship with the insects. The ant plant invites ants to live in its inner chambers. As payment, the plant gets nutrition from the waste products of the ant community. This is a nice example of how nature works through a complex and symbiotic relationship benefiting both plant and insect.

Perhaps the kerangas forest of Ulu Padas is best known as a paradise for orchids. These plants have also adjusted to the poor environment. Some orchids actually grow with roots pointing up instead of down. The roots resemble a bunch of tentacles grabbing dead leaves and other twigs that drop down from the canopy of the forest. The fallen plant materials will rot in the hold of the roots and slowly turn into humus to nourish the orchid.

WWF-Malaysia has been in the area for some years working together with the local communities on developing an eco-tourism programme that will benefit both the community and the biodiversity. WWF-Malaysia is convinced that tourists interested in nature will find Ulu Padas to be a heaven. Near the village of Long Pasia is the Taman Kerangas, an area with an abundance of orchids growing there and some that were brought there after 'rescue missions' from the concession area. And for those who want to take longer trips into the forest, there is one route leading to the Maga Fall. A very scenic destination in itself, Maga Fall also gives a glimpse of another attraction – Taman Bunga – a natural flower garden where orchids bloom all year round.

Ulu Padas with its world of plants that have adapted in unique ways to poor soil conditions is a vulnerable and sensitive environment. Even small changes to their surroundings will have a rippling effect on these plants. And Ulu Padas is an environment undergoing major changes. Most of the forest area is licensed out to Sabah Forest Industries (SFI), and logging activities carried out are causing more and more patches of kerangas forest to disappear everyday. Despite being important to humans and being a complex environment, these forests are currently under threat. Better management and planning for sustainable use are necessary if these forests are to remain in the future. ■

Forest Sirens: from top to bottom, *Coelogyne gibbifera, Bulbophyllum virescens and Phaius callosus.* PHOTOS: ©WWF-MALAYSIA / LENE TOPP