There wasn't too much back-peddling in the question session, despite searching questions. Alternatively, it threw-up interesting discussion on how fire- and mammalian-browse-adapted traits in plants from Australia might have been inherited by the New Zealand flora from long-distance dispersal. Matagouri, the only native plant with true spines is one such candidate as a comparatively recent immigrant. Lignotubers – the underground swollen basal part of stems used as storage organs as a survival mechanism in times of disturbance (fire) or climatic extremes - are rare in the New Zealand flora but a frequent plant trait on dry, fire-prone continental landmasses.

23 July, Tunnel Beach field trip. *Allison Knight*

A very low tide after a full moon is a perfect time to explore Tunnel Beach, and Graeme Loh made the perfect guide to all the extra sights. As well as the fairy prions (apologies for calling them fairy terns in the last newsletter) there were white-fronted terns and rock pigeons nesting on the cliffs. Embedded part way down the sandstone cliff was a partly exposed fossil whale, while on the wind-eroded top were exposed fossils of shells including cardiocrinum, scallop and the gizzard stones of ancient seabirds.

A closer look at the coastal turf revealed a mat of *Leptinella dioica*, the first flower of spring on *Samolus repens*, the sea primrose, and the last fruit of autumn on *Selliera radicans*. *Atriplex buchananii* was also in flower while the *Salicornia australis* and the *Disphyma australe* (native ice plant) on the exposed slopes were looking a bit weather-beaten. Down near the shelter of the tunnel mouth we spotted *Hebe elliptica*, *Senecio lautus* with purples stems and veins, and the stout form of the native celery, *Apium prostratum*. For the daring, right on the edge of the cliff grew sea blight, *Suaeda novae-zelandiae*.

Rocks and fence posts were host to a variety of lichen communities. Graeme introduced us to the best botanical aid to kneeling he'd come across – Eazi-fit neoprene knee protectors, from Placemakers. I've got some now - they're brilliant for lichening and I can garden all day without getting a sore back or damp knees!

Thanks to John Barkla for preparing the handout. Braving the winter weather were: Graeme Loh, Toni Atkinson, Janet Ledingham, Judy Russell, Francie Beggs and Allison Knight.

21 Sept. Leaving the white line: Conserving tropical forests in the Adelbert Range, Papua New Guinea. A talk by Matt Scott. *Norman Mason*

The audience was treated to a typically vivacious talk by Matt Scott on tropical forest conservation in a remote part of Papua New Guinea. Matt began by explaining that the flora and fauna of Papua New Guinea was a mix of Gondwanan and Asian origins, with podocarp-like and acorn-producing species occurring in close proximity to one another. We were reminded that the human diversity of New Guinea is as fascinating as the rest

of the island's biological diversity, with 800 languages being spoken throughout the island.

One of the major conservation challenges facing Papua New Guinea is deforestation associated with timber extraction. Matt explained that half of the forested area has been identified as economically viable for logging. Almost all of the land is owned collectively by clans. But (and it's a big one) the government is able to sell logging rights to logging companies. 60 percent of the logging is conducted by a single Malaysian company, and members of parliament or their relatives have interests in almost all logging in PNG. Further, the people that own the land have no say in how the logging is conducted.

Being dissatisfied with this situation the people living in the Adelbert Range decided to take the government to court – and won! This gave them the right to log their own land (at least in the western part of the range). The Nature Conservancy – a non-governmental conservation trust that originated in the US – has been helping the local people to manage their land and identify areas for different uses, such as settlement, logging, farming, hunting and conservation.

Matt, along with Rob Cadmus (a former student at the UO Department of Zoology), set out to survey areas set aside for conservation in order to devise a management plan and to estimate species composition in other areas through conversations with local people. Three local guides aided them in all their sampling. All the plant species along altitudinal transects were recorded using their local names. The use of the same three guides for all the sampling ensured that the names were consistent throughout the study. The soils of the range are mainly clays, overlaying limestone, so that Matt and Rob either found themselves on slippery soil or slippery rock during their sampling.

More detail was given on the people that Matt and Rob encountered than the plants. Matt explained that the villages tend to be sited on high ground to avoid malaria. The local people grow some cash crops such as vanilla and cocoa in order to pay for their children's to schooling, but most effort is devoted to growing food crops. These include taro, the giant swamp taro, sweet potato, corn, yams, sugarcane, cassava, bananas, a type of squash and coconut (in coastal areas).

We were provided with an example of how local superstitions can aid conservation, with Matt explaining how one of the guides suggested a certain area of forest be avoided due to the presence of little people. Such superstitions are waning in some areas of New Guinea, with detrimental effects on the larger game animals.

Overall it was a highly enjoyable and highly visual talk. I was left pondering the realities of working in such a challenging place (pondering especially the quality of the local food), while also reflecting on the future challenges these isolated people, and the ecosystems they depend on, will face from the outside world.

Look out for the following reports in the next issue. 7 August, Okia Reserve trip, 31 August, *Weeds & I;* Ian Radford's talk, 10 September, The Crater trip. Please send in some more website and book reviews by then, too!