Note:

Edgar, E. and H. E. Connor. 2000. "*Flora of New Zealand Vol V. Grasses*". Maanaki Whenua Press, Lincoln. 650pp. can be purchased from the University Book Store for $54.95, or from Landcare Research for $55 for Vol. 5 alone or $100 for the entire set of five volumes of the Flora of New Zealand. Email: **mwpress@landcare.cri.nz**

Profile of a Botanist: Paul Guy, Plant Virologist.

You are probably all too aware that people catch viruses. This week in Dunedin the air is filled with coughs and splutterings and sneezes which propel fine aerosols of the common cold virus towards its next victim. Most people are unaware that plants are infected with their own suite of viruses. Fungi are the most conspicuous pathogens of the plant world but, at the last count, there were some 900 well characterised plant viruses.

You may have noticed the odd tulip with colour breaking in its petals; these often stand out in mass plantings. This effect started a craze in 17th century Holland called tulipomania which saw outrageous prices paid for bags of tulip breaking virus (TBV) infected bulbs. The bulbs produced interesting feathery patterns in their blooms sure enough but with every replanting the bulbs and blooms got smaller and smaller and then finally died: a very poor investment. Next time you visit your local nursery you may notice that you have two choices of honeysuckle: one has green leaves and is labelled *Lonicera nitida* and in the next row you will find *L. nitida* subsp *aurea* with an attractive yellow net pattern in its leaves. The vein netting is caused by tobacco leaf curl virus (TLCV) and if you want to change the 'subspecies' of your green honeysuckle just graft a bit of *aurea* onto it and the virus will spread via the graft union to its new host.

One of my interests is viruses in the native flora. The New Zealand flora probably has its own native viruses (I haven't found

any yet!) and it has certainly been invaded by viruses brought unwittingly with their hosts from overseas. Unlike the common cold, most plant viruses are not spread by touch or by aerosols: they need some sort of vector (usually an insect) to inoculate their next host. TBV is spread by aphids but only infects tulips so it is not a threat to our flora. In contrast TLCV has a wide host range and is spread by a whitefly which feeds on a wide range of species. Fortunately the whitefly has been excluded from New Zealand so far. Unfortunately other viruses have spread to the flora. Barley yellow dwarf viruses have spread to our native grasses and cucumber mosaic virus has spread to a number of native dicots. A number of postgraduate students and I have been investigating the spread and are beginning to assess the impact of these virus invasions.

Paul Guy.

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Postcard Review:

Last year saw the issue of a set of twelve postcards to commemorate the 30th Anniversary of the Bryology/Lichenology Workshop of the State Museum for Natural History in Stuttgart, Germany.

The set comprises 1 liverwort, *Radula complanata*; 6 mosses, *Hedwigia stellata, Cratoneuron filicinum* (in N.Z.); *Rhodobryum ontariense, Sphagnum subsecundum* and *S. warnstorfii,* and *Racomitrium lanuginosum* (in N.Z.); 8 lichens, *Sticta filix* (in N.Z.); *Letharia columbiana, Thamnolia vermicularis* (in N.Z.) *Cetaria nivalis, Dermatiscum thunbergii, Ramalina menziesii, Caloplaca elegantissima* and *Xanthoparmelia serusiauxii.*

New Zealand is well represented with four species being found here and many of the others depicted have relatives here. The photography is excellent, highlighting much of the detail of these