

- Thiers H.D. 1984: The secotioid syndrome. *Mycologia* 76:1–8.
- Trappe J.M.; Maser C. 1977: Ectomycorrhizal fungi: interactions of mushrooms and truffles with beasts and trees. In: Walters T, ed. *Mushrooms and man: 4th Interdisciplinary Approach to Mycology*. Linn-Benton Community College, Albany, Oregon, pp. 163–179.
- Velišek J.; Cejpek K. 2011: Pigments of Higher Fungi: A Review. *Czech J. Food Sci.* 29(2): 87–102.
- Vernes K. 2010: Ch 14. Mycophagy in a community of macropodoid species. In: Coulson G, Eldridge MDB, eds. *Macropods: The Biology of Kangaroos, Wallabies, and Rat-kangaroos*. CSIRO Publishing, Collingwood, Australia.
- Vernes K.; Dunn L. 2009: Mammal mycophagy and fungal spore dispersal across a steep environmental gradient in eastern Australia. *Austral Ecology* 34(1): 69–76.
- Vernes K.; Lebel T. 2011: Truffle consumption by New Guinea forest wallabies. *Fungal Ecology* 4: 270–276.
- Vernes K.; McGrath K. 2009: Are introduced black rats (*Rattus rattus*) a functional replacement for mycophagous native rodents in fragmented forests? *Fungal Ecology* 2(3): 145–148.
- Vernes K.; Trappe J.M. 2007: Hypogeous fungi in the diet of the red-legged pademelon *Thylogale stigmatica* from a rainforest – open forest interface in northeastern Australia. *Australian Zoologist* 34(2):203–208.
- Willson M.F.; Whelan C.J. 1990: The evolution of fruit color in fleshy-fruited plants. *The American Naturalist* 136: 790–809.
- Wilmhurst J.M.; Higham T.F.G. 2004: Using rat-gnawed seeds to independently date the arrival of Pacific rats and humans in New Zealand. *Holocene* 14: 801–806.
- Wood J.R.; Rawlence N.J.; Rogers G.M.; Austin J.J.; Worthy T.H.; Cooper A. 2008: Coprolite deposits reveal the diet and ecology of the extinct New Zealand megaherbivore moa (Aves, Dinornithiformes). *Quaternary Science Reviews* 27(27–28): 2593–2602.
- Worthy T.H.; Holdaway R.N. 2002: *The Lost World of the Moa: Prehistoric Life of New Zealand*. Bloomington/Christchurch: Indiana University Press/Canterbury University Press. 718 pp.

Plants named for our “two Lucies”.

An occasional paper in the series “Plants named for ABS members”

Maureen Young and Ewen Cameron

Lucy Cranwell (1907–2000) (Cameron 2000, Thomson 2000), founder and patron of the Auckland Botanical Society, and her friend and botanising companion, Lucy Moore (1906–1987) (Beever 1987, Moore 1925–1987), were first called the “two Lucies” by Leonard Cockayne, and the name stuck. The first name of these two redoubtable botanists was used in the naming of the grass, *Festuca luciarum* Connor (1998). This grass, endemic to the East Coast region, honours both of the Lucies who were together on the remote Mt Maungapohatu in 1932 (Fig. 1) where Lucy Cranwell collected the type specimen (AK 200090).

In the late twenties and the thirties the two young women were actively attempting to learn the whole New Zealand flora, encompassing algae, bryophytes and vascular plants. As Lucy Moore (Morton 2000, p.356) was to write “we were jacks, or jills, of many trades”. John Morton stated in his Lucy Cranwell Lecture (Morton 1995, p.1), “These were historic years when the “two Lucies” ... were making their own first incursion into marine intertidal ecology at the Poor Knights. ...this was to be the first real insight into the zoning of our marine shores.” Their seaweed studies on northern islands, the Waitakere coast and the Hauraki Gulf, together with Lucy Moore’s wartime work on obtaining agar from local seaweeds (as it was no longer available from Japan), resulted in the naming of four species of algae for the pair – two for each. For Lucy Cranwell, two North Island marine algae, *Codium cranwelliae*

Setch. (1940) and *Gigartina cranwelliae* Chapm. (1979); for Lucy Moore, two red seaweeds, *Euptilia mooreana* Lindauer (1949) (now *Aristoptilon mooreanum*) and *Ptilonia mooreana* Levring (1955). A moss found on the exposed coastal rock platforms of Rangitoto Island, and at other northern sites, was named *Tortella mooreae* Sainsbury (1955), but is now considered to be synonymous with the Australian *T. cirrhata* Broth.

Lucy Cranwell was the inaugural curator of botany at the Auckland War Memorial Museum, 1929–1944. She was involved in the Hawaiian Bog Survey in 1938 and, after her marriage during the war to an American army captain (later major), Lucy Cranwell left New Zealand in February 1944, and carried on her interest in palynology, the study of fossilised pollen, in Tucson, Arizona. Because of this it is not only plants from New Zealand, but three from Hawaii and several fossil plant taxa, which have been named in her honour. Living taxa include three Hawaiian dicots: *Stenogyne cranwelliae* Sherff (1939) (Lamiaceae), *Peperomia cranwelliae* Yunker (1949) (Piperaceae), and *Fagara mauiensis* var. *cranwelliae* Skottsbo. (1944) (Rutaceae) (now included in *Zanthoxylum kauaense*); a crustose lichen known from its original gathering by Lucy in 1933 at Anawhata, west Auckland, and a few recent collections, *Buellia cranwelliae* Zahlbr. (1941); fossil taxa include a pentoxylean seed collected by Lucy in 1931 south of Auckland by the Waikato Heads, *Carnocarnites cranwelli* T.Harris; and four



Fig. 1. The "two Lucies" climbing Mt Maungapohatu in the Ureweras. Photo: Norman Potts, Jan 1932, Auckland War Memorial Museum, PH-CNEG-C45417.

microfossils, *Nothofagidites cranwelliae* (Couper) Mildenhall & Pocknall (fossil *Nothofagus* pollen), *Pseudowinterapollis cranwellae* (Stover) Mildenhall (fossil Winteraceae pollen), and two genera,

Cranwellia Srivastava (a genus of fossil lorantheaceous pollen) and *Cranwellipollis* Martin (a genus of fossil proteaceous pollen grains).

Lucy Moore's career was based in New Zealand, where she became one of the highest-ranking officers of the Botany Division of the Department of Scientific and Industrial Research. She worked with H.H. Allan on the *Flora of New Zealand Vol. I* (1961), and brought it to completion after his death. For this she revised the genera *Hebe* and *Myosotis*. The year she died, and many years after her death, she was honoured by the naming of a species in each of these genera: *Leonohebe mooreae* Heads (1987), which is confined largely to the west of the mountainous spine of the South Island; and *Myosotis mooreana* C.A.Lehnebach (2012). This latter species is known from only six individuals in the Kahurangi National Park and therefore has a threat category of Nationally Critical (Lehnebach 2012).

In a taxonomic revision of the New Zealand *Libertia* by Blanchon et al. (2002), three new taxa were named after three of our female botanists who had worked on monocotyledons. Thus we have *Libertia cranwelliae* Blanchon, B.G.Murray & Braggins honouring Lucy Cranwell for her expertise in monocotyledon pollen, and *L. edgariae* Blanchon, B.G.Murray & Braggins and *L. mooreae* Blanchon, B.G.Murray & Braggins celebrating Elizabeth Edgar and Lucy Moore for their work on the three volumes of the *Flora of New Zealand* concerned with monocotyledons (Volumes II, III, and V).

The naming of 19 taxa to honour these two founding members of the Auckland Botanical Society is indicative of the high regard in which they were, and still are, held in the botanical world.

References

- Beever, R.E. 1987: Obituary: Lucy Beatrice Moore 1906-1987, MBE, MSc, DSc, FLS, FRSNZ. *Auckland Botanical Society Journal* 42: 34-35.
- Blanchon, D.J.; Murray, B.G.; Braggins, J.E. 2002: A taxonomic revision of *Libertia* (Iridaceae) in New Zealand. *New Zealand Journal of Botany* 40: 437-456.
- Cameron, E.K. 2000: Obituary: Lucy May Cranwell, MA, DSc, DSc (Hon), FLS (Lond.), FRSNZ, 1907-2000. *New Zealand Journal of Botany* 38: 527-535.
- Lehnebach, C.A. 2012: Two new species of forget-me-nots (*Myosotis*, Boraginaceae) from New Zealand. *PhytoKeys* 16: 53-64.
- Moore, L.B. Papers, 1925-1987: Auckland War Memorial Museum Library. MS-90-55.
- Morton, John 1995: The Lucy Cranwell Lecture, The Natural Community: Forest and Shore, 5 October 1994. *Auckland Botanical Society Journal* 50: 1-12.
- Morton, John 2000: Moore, Lucy Beatrice. Dictionary of New Zealand Biography. *Te Ara - the Encyclopedia of New Zealand* 5: 355-356.
- Thomson, A.D. 2000: Lucy May Cranwell Smith MA DSc DSc(Hon) FLS FRSNZ, 1907-2000. *Yearbook of the Academy Council of the Royal Society of New Zealand* 2000: 48-64.