Flora of the Granite Belt

Girraween National Park, Queensland. Photo: Tatiana Gerus

Tim Low

➤ Wahlenbergia bluebell with crab spider (Runcinia acuminata). Photo: Jenny Thynne



➤ The mouse bush (Homoranthus papillatus) is endemic to the region. Photo: Nicholas Fisher

One striking feature of nature is its unevenness – some regions are packed with species while others seem to miss out. Extravagantly rich regions, such as the Wet Tropics and south-western Australia, attract special attention for their diversity, and rightly so. But some regions that are bursting with species don't attract much acclaim, and the Granite Belt is one of these.

he Granite Belt is the Queensland part of the New England Bioregion, which extends well south of Armidale, NSW, but is rockier and biologically more exciting in the north. The Granite Belt is especially dramatic to anyone approaching from Queensland's capital, Brisbane, because the contrast is so extreme. It is the only part of Queensland to experience serious snowfalls, sometimes even substantial enough to snap branches off trees. Some biogeographical schemes designate a cool Bassian province in south-eastern Australia that meets a tropical and subtropical Torresian province, with the boundary formed by the northern edge of the Granite Belt. It is the domain of barenosed wombats (Vombatus ursinus), superb lyrebirds (Menura novaehollandiae) and orchards of stone fruits, while the lands just to the east and north-east have Albert's lyrebirds (Menura alberti), diverse subtropical rainforests, and orchards of pawpaws and avocadoes.

Although the Granite Belt is less than 50 km long and not even half that wide, it manages to pack in 900 plant species, including an amazing 80 orchids, 30 wattles, 23 tea trees (10 *Leptospermum*, 13 *Melaleuca*), 10 bluebells (*Wahlenbergia*), and much more. What is truly remarkable is that more than 700 of these plants grow in the region's main national park, Girraween.

A wildflower wonderland

At 11,800 ha in size, Girraween NP is substantial but not immense. High diversity attests to high rates of survival during the harsh ice ages, and there are clear reasons why the Granite Belt has proved a refuge for flora. The rocky peaks and tors attract rain, which sluices off the granite rock faces and provides far more water to downslope plants than rainfall figures suggest. The rugged boulders and domes create cool, humid shaded sites as well as hotter, drier sites on north-facing slopes. When climates fluctuated dramatically during the ice ages, plants found the climatic niches they required by moving short distances between wet and dry and hot and cool sites; subsequently, the craggy, boulder-strewn parts of this region boast the greatest diversity.

Rocky outcrops and pavements provide protection from the elements. When intense fires burn through Girraween, their reach is often limited by granite barriers, which, depending upon fire size and wind direction, may prevent the flames reaching some areas. The result is a patchwork of fire regimes across the Granite Belt, suiting a range of species. Australia has become more flammable over millions of years, so Girraween and other rocky areas are often refugia for plants that were more widespread millennia ago.

This floral diversity is apparent in *Flora of the Granite Belt*, a wonderful new guide by the Stanthorpe Rare Wildflower Consortium. Its pages present a feast of colour, depicting every one of the region's 80 orchids, the 12 *Pomaderris*, 11 *Hibbertia* and an incredible array of native peas. High-quality photographs are coupled with descriptions that, while sometimes brief, target the key identifying features of each species.





↑ The granite bluebell (Wahlenbergia graniticola) is one of ten bluebell species found in the region. Photo: Ian Milinovich

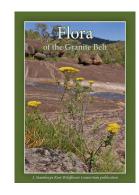
➤ The swamp daisy bush (Olearia glandulosa) is distributed across eastern Australia but has just one wild population north of Sydney, centered on Girraween NP. The absence of swamp daisy from the rest of the New England Tableland points to Girraween's role as a place of refuge. Photo: Natalie Tapson

Flora of the Granite Belt shows that natural history publication is alive and well in regional Australia. A new endemic shrub - Homoranthus inopinatus - was even discovered on a private property near Ballandean during the book's production. This guide compares well to Native Plants of the Sydney Region and Perth Plants, although its area of focus is a region, not a city. The main town of the Granite Belt, Stanthorpe, is more than three hour's drive from Brisbane, yet Girraween has been largely neglected by researchers at Brisbane universities in favour of closer locations, such as Lamington National Park and Stradbroke Island. This book will do much to lift the profile of the Granite Belt and the New England Bioregion as a whole.



TIM LOW is the author of seven books, including Where Song Began: Australia's Birds and How They Changed the World (Penguin).

Flora of the Granite Belt, Stanthorpe Rare Wildflower **Consortium. RRP \$65** (including postage). Available from www.granitebeltwildflowers.com/publications



✓ Granite Belt endemics include wildflowers such as White's phebalium (Phebalium whitei, below left) and the lovely boronia (Boronia amabilis, below right). Some endemic species extend south from the Granite Belt to Armidale, NSW; others are even more widely distributed.

