



North-Eastern Tasmanian Field Naturalists Club Inc.

The North Eastern Naturalist

Newsletter of the NE Tasmanian Field Naturalists Club

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MISSION STATEMENT: It is the mission of this club to encourage the study, appreciation and preservation of our natural and cultural environment, the animals, plants, geology and landforms, including those of the coastal and marine areas in the North East region of Tasmania.

From the Editor: This is the supplement to the December 2016 issue of the newsletter. It consists of two articles.

The first is a follow-up to the article by Lou Brooker on the Binalong Bay activity in October. Roy Skabo, who led the Binalong Bay walk, approved the re-publication of an interesting article he wrote in 2009 about *Hibbertia rufa*. This plant was believed to be extinct in Tasmania until Roy discovered it growing near St Helens in 2008.

H. rufa was also observed during the club's October activity, but was only in bud at that time.

The second article was contributed by club President Jill Van Den Bosch about her recent trip-of-a-lifetime to South America and the Galapagos Islands. In addition to providing wonderful descriptions of the natural environments she encountered, Jill took many stunning photos, some of which accompany her article in this supplement.

REDISCOVERING *Hibbertia rufa* in Tasmania

Article by Roy Skabo — photos by Roy Skabo and Lou Brooker

One of my favourite places for botanising (i.e. having a nice walk and looking at flowers) is a wet buttongrass heath a few km west of The Gardens and about two km east of Ansons Bay Rd, north of St Helens. This wet buttongrass heathland is part of the Doctors Peak Forest Reserve.

It is rather like an archipelago, with the 'sea' being the low-lying swampy areas and the 'islands' being very low rises covered in dry sclerophyll woodland. The whole area is dissected by small creeks which drain into either the Ansons Bay River or the Georges River.

My wife Louise and I first stopped there about eight or nine years ago when we noticed a wonderful display of white paper daisies (*Argentipallium dealbatum*) as we drove past. The area had been burnt off

perhaps a year before this visit, and we could wander around the area quite easily, marvelling at the varied and abundant flora which included a number of orchids, lilies, several pea-flower species and *Drosera binata* in full flower along the creek banks.

Since then we have been back several times per year, and each time it is harder to cross the creeks because of the heavy re-growth of woolly tea tree and other shrubs. There are still open areas but they are fewer and further between. Smaller plants struggle to compete with the taller sedges and shrubs, so the floral display is dominated by the shrubs. Still, it is a very interesting place to visit, and almost every time I go there I find something I have not seen before. Because it is wet, the flowers last longer than they do in other areas and many of the species are not found in drier heaths.

On December 1st 2008, during yet another visit to the area, I noticed a tiny-flowered (1-cm diameter) prostrate *Hibbertia* which I could not put a name to. Because a storm was approaching, I took a small sample and a GPS reading and did not bother with any other details.

On returning to Launceston I tried to key out the *Hibbertia*, and found that the only species to match my specimen was the 'extinct' *Hibbertia rufa* (brown guinea flower). Not quite believing my tentative identification, I sent the specimen to Alex Buchanan at the Tasmanian Herbarium and awaited his verdict.

Within 24 hours I had an email from Alex saying that he thought I was correct. By coincidence, however, the only Tasmanian Herbarium record for *H. rufa* (from the collection of Leonard Rodway and dating from 1892) was on loan to the South Australian Herbarium, where Dr Hellmut Toelken is making a study of *Hibbertia* species, including some found in Tasmania. I sent Hellmut a specimen of my plant, and within a couple of days he emailed that he agreed with the identification too.

The next step was to register my find on the Natural Values Atlas, the Tasmanian database for information on all species (flora and fauna) which have been found in Tasmania. Within a few hours I had an email from the Threatened Species Unit in Hobart (the custodians of the NVA) congratulating me and alerting other interested people to the 'resurrection' of the brown guinea flower.

Over the next couple of weeks a number of people asked to see the brown guinea flower. With their help we have found many more plants and determined that they are growing in patches over an area of about 1 km by a couple of hundred metres.

This may sound like a pretty healthy situation, but if it is the only population in the state then the plant is much at risk. Furthermore, it is difficult to count populations of this species because it suckers extensively and what appears to be a patch of several plants may turn out to be just the one plant.

To find a species which had not been seen in Tasmania for nearly 120 years and was thought to be extinct in this state (although it occurs near the NSW/Victoria border) has been a huge pleasure for me. It was also nice to be the first to photograph it in Tasmania.



Hibbertia rufa — thought to be extinct in Tasmania until Roy discovered it growing near St Helens in 2008 - photo by Roy Skabo

I wonder exactly where Leonard Rodway found his specimen, which he annotated as being in the Georges Bay area. This was in the days before GPS, and botanists at that time did not seem to worry too much about providing details for the locations of their discoveries.

The area around the Bay of Fires and Georges Bay contains a large number of rare and threatened plant species. The most notable of these is the Davies waxflower (*Phebalium daviesii*) which grows only in Tasmania. With only thirty or so plants in the wild, and all of these on the banks of the Georges River, it must be one of the rarest plants in the world (although it is easy to propagate and grows well in the garden). I am pleased to have added to the number of these precious species known to exist in this wonderful part of Tasmania.

The rediscovery of the brown guinea flower reminds us of the need to protect our natural heritage. We do not have a complete knowledge of what is out there, and it would be a great shame if we lost something before we even knew it existed.

Guinea Flowers

Tasmania has fourteen species of guinea flowers, the common name for members of the genus *Hibbertia*. They are easy to identify as a group because all but one of the Tasmanian species have five showy yellow petals which are slightly indented at the rounded tips. Some species have large flowers and make very good garden plants. They are not so suitable for the vase as they lose their petals quite readily. Many of the species are very common and several of them, including a number of rare species, grow in the Break O'Day municipality. The common name for *Hibbertia rufa* comes from the reddish-brown colour of its branches. Its petals, though small, are similar to those of other Tasmanian species.



North-East Tasmanian Field Naturalists walk at Doctors Peak Reserve in October 2016 - photo by Lou Brooker

THE NATURAL WONDERS OF SOUTH AMERICA

Article and photos by Jill Van Den Bosch

In June and July this year I was lucky enough to spend two months travelling through five South American countries, experiencing their history, geography, geology, culture, natural features and wonderful hospitality. Because it was winter in the southern regions I chose to travel north, leaving the south for possibly another time. Every segment of the trip was special; I have chosen three to share with you.

After a couple of days in Santiago de Chile, I made the spectacular flight north, following South America's 'spine', the snow-covered Andes Mountains to the Atacama Desert, the highest and driest desert in the world (after Antarctica).

Much of western South America is subject to volcanic action and this is clearly seen in the Atacama. I made a couple of day trips up to the altiplano, the stark high plains that are ringed by volcanoes and studded with lakes of extraordinary blues and greens, the colours caused by various minerals, including boron.

At over 4000 m altitude very little grows, and then it is low, tough and often yellow.

The smallest of the camelids, vicuña, roam wild and the lakes are important breeding grounds for numerous birds.

Pre-dawn (and with the air temperature at -9°C) at the steamy El Tatio Geyser Reserve it was rather eerie as geysers and fumaroles hissed, spat and gurgled. In some areas the boiling water froze as soon as it hit the ground.

At Laguna (Lake) Chaxa the salt pans form crazy paving patterns, dotted with the startling pink of two species of flamingos.

There were also numerous plovers, coots and ducks. This area, extending into Bolivia, is rich in lithium deposits and there is a strong push from mining companies to be allowed access to mine in the reserve.

A Peruvian highlight was the 4-day hike through the Sacred Valley to Machu Picchu. The walk took us through farm land—lots of corn and potatoes, with farmers still using simple wooden ploughs pulled by a bullock.

After following the rushing, glacier-fed Urubamba River for half a day, it was up through *Eucalyptus globulus* (yes!) forests; along narrow Inca-built pathways; past extraordinary, lesser known Inca



The stark but stunning altiplano of the Atacama Desert: a frozen lake surrounded by volcanoes



El Tatio Geyser Reserve – in some areas the boiling water freezes immediately it hits the ground

sites; up and up and up Inca steps; through dry cactus and bromeliad-dominated landscape with views of snowy mountains and glaciers and way down into the valley. Then up more Inca steps, until late on the fourth day, totally exhausted, we entered Machu Picchu via the Sun Gate, giving us the classic view of the site from above. Being the dry season, the orchids were not in flower and there were few birds, but the tranquillity and the stunning views more than compensated.



Looking back to the Veronica Glacier in the Sacred Valley, while hiking to Machu Picchu

The final highlight has to be the Galapagos Islands. After an interesting few days in Bolivia I flew to Quito, Ecuador, where I met up with Bridport friend Ruth Cuff.

An hour and a half flight out into the Pacific and we found ourselves in the most extraordinary place. The islands are the tips of vast undersea volcanoes and are relatively new in geological time. Volcanic activity continues in some areas.

The cool Humboldt and Cromwell currents moderate the temperature. In the highlands, where soil has formed and rainfall is more plentiful, there is dense tropical vegetation.

But for the most part the islands are stark, often devoid of any vegetation apart from tall, bristling cacti and the strangely leafless *Bursera graveolens* (the incense tree) which bursts into life in the wet season.



The high iron content gives Rabida island (one of the Galapagos Islands) its red colouring

We spent eight memorable days on MS Cachalote 1, a little sailing ship with 15 passengers, 6 crew and our wonderful guide Billy.

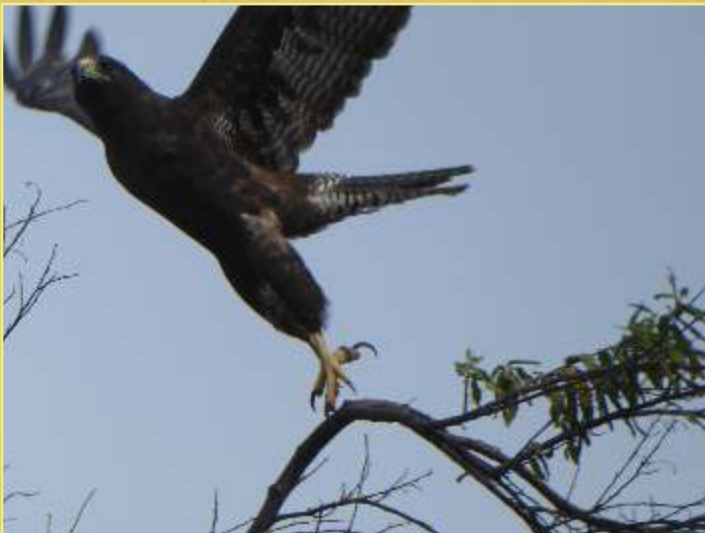
Each island we visited was different from the others in its geology, wildlife and vegetation. It was like a David Attenborough show in real life. We tried to avoid stepping on well-camouflaged marine iguanas, looking like pre-historic dragons, basking one on top of the other in the morning sun; admired the large, agile and brightly coloured Sally Lightfoot crabs; followed giant land tortoises as they ambled along, stopping to graze on fresh greenery; got excited every time we saw blue-footed boobies, especially if they were doing their little mating dance; and were lucky enough to see the endangered Galapagos hawk.

Snorkelling took us to another world again—Little Galapagos penguins whizzing by; green sea turtles just drifting; sea lions that sometimes frolicked with us; flightless cormorants diving for dinner, and of course schools of darting, colourful fish. Storm petrels regularly followed the boat, and frigate birds would hover overhead.

A humpback whale passed by our bow one evening causing much excitement, then came back for a second look. The smaller pilot whales were keeping their distance.



The blue footed booby (*Sula nebouxii*) performing his mating dance



The vulnerable Galapagos hawk (*Buteo galapagoensis*)



The amazing eroded formations of The Valley of the Moon, Atacama Desert

Tourism is tightly controlled on the Galapagos Islands—the number of visitors is restricted, walkers must keep to pathways and be must accompanied by an accredited guide. The Ecuadorian Government and administrators of the Galapagos Islands recognise their value and their vulnerability.

Fortunately, visitors to the islands also seem to respect the need to take great care of this unique little spot on our planet.