

Retracing the botanical steps of Leichhardt and Gilbert in June 1845

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Abstract

Ludwig Leichhardt and John Gilbert travelled over harsh and inhospitable country until they reached the confluence of the Lynd and the Mitchell Rivers on 15 June 1845. They then turned west and followed the Mitchell River until about 24 June, when they altered course and soon crossed the Nassau River near which John Gilbert was speared to death on the evening of 28 June, whilst camped on the edge of one of the many lagoons in this area.

The route taken by Leichhardt was retraced in October 1985 and the present vegetation compared with the diary entries. The description of the vegetation, in the vicinity of the lagoon where they camped on that fateful night, enabled this lagoon to be located and subsequently the site of Gilbert's grave was found.

In late September 1844, a party lead by Dr Ludwig Leichhardt (Fig. 1), left the Darling Downs in an attempt to find an overland route to Port Essington on the Cobourg Peninsula. In October 1985, another expedition was provisioned. This one set out from Townsville to retrace the steps of the party from 16 June 1845 until the death of John Gilbert on 28 June 1845. The aims of this expedition were: to locate the lagoon where Gilbert had been speared and subsequently interred; and to try and understand something of Leichhardt as a person. Did he deserve the bad press and the criticisms that he has received? Was he a bad leader, autocratic and unable to take advice? Was he a bad navigator who bumbled around the bush? It must also be remembered that this was the first of three expeditions by Leichhardt. A team of University personnel lead by Professor Brian Dalton of the History Department, James Cook University, accompanied Captain Justin Dwyer and members of the 2/4 RAR, on the 1985 expedition. This expedition was mounted by the Australian Army as part of their Adventure Training programme.

When Leichhardt left the Darling Downs he proposed going northward along the Great Divide keeping close to the upper reaches of such rivers as the Isaacs and Burdekin until he came to a river flowing westward at the latitude of the Gulf. He would then follow the river to its mouth. Then he would proceed around the bottom of the Gulf and across to Port Essington. The trip was supposed to last six months. They took with them bullocks which were to provide fresh meat to supplement the game caught en route and to act as pack animals. The bullocks, although fulfilling both these tasks, slowed them down considerably. Two of the original party left the expedition in late October and returned to the Darling Downs. The remaining members of the party were: Ludwig Leichhardt, who had some scientific training, kept notebooks (Leichhardt 1845) and sketched each day's travel; John Gilbert, a self taught ornithologist, kept a

daily diary (Gilbert 1845); James Calvert, chief cook and apparently good at small talk; John Roper, who sent a long letter to John Gould who was Gilbert's patron, had a silent disposition according to Leichhardt; William Phillips, a ticket of leave convict, liked his comforts and was apparently 'singular in his habits' (Leichhardt 1847); John Murphy, about 16, who had a happy disposition; Charley, an aboriginal who was a late riser, and Brown, also an aboriginal who was fond of spinning yarns. Until the end of June 1845, the routine was to ride for some 4–5 hours or until a suitable campsite was found near fresh water (average 5–9 miles) then as Leichhardt writes 'during the afternoon everyone follows his own pursuits, such as washing and mending clothes, repairing saddles, pack saddles and packs; my occupation is to write my log, and lay down my route, or make an excursion in the vicinity of the camp to botanize, etc., or ride out reconnoitring' (Leichhardt 1847).¹ If the animals were too footsore or meat had to be dried then the party would spend 2–3 nights if necessary at the same camp.

Thus, by 4 May 1845, after seven months travelling, they had only reached 18°44'S where they 'discovered an extensive valley with large lagoons and lakes, and a most luxuriant vegetation.' (4 May). This was the area now known as the Valley of Lagoons. They continued to travel in a northerly direction crossing various basaltic outcrops and rocky granitic ridges as they tried to find a way across the Great Dividing Range and the object of the expedition i.e. a river flowing westward. Leichhardt seemed fascinated by the variety of different Proteaceae that he encountered on these rocky ridges. These included *Hakea arborescens* R. Br., *H. lorea* (R. Br.) Benth., *Grevillea dryandri* R. Br., *G. mimosoides* R. Br., *G. parallela* Knight, *G. pteridiifolia* Knight, *G. striata* R. Br., and *Xylomelum scottianum* (F. Muell.) F. Muell. The common eucalypt occurring along the streams and in the open forest was the narrow-leafed ironbark (*Eucalyptus crebra* F. Muell.) whilst on the open plains and occasionally on sandier



Fig. 1. Dr Ludwig Leichhardt.

soils box and the poplar gum (*E. platyphylla* F. Muell.). Moreton Bay ash (*E. tessellaris* F. Muell.) was found on the flats, and on sandy soils the stringy-bark (*E. tetradonta* F. Muell.). The silver-leaved ironbark (*E. shirleyi* Maiden) occurred on the ridges. Once he was north of where Mount Surprise is today, two new eucalypts appeared which caught his eye, these were *E. miniata* Cunn. ex Schauer 'a eucalyptus, with very scanty foliage, orange-coloured blossoms, seed-vessels longitudinally ribbed and as large as the egg of a fowl; its butt was covered with a lamellar bark, but the upper part and branches were quite smooth' and *E. confertiflora* F. Muell. 'another eucalyptus, with a scaly butt like the Moreton Bay ash, but with smooth upper trunk and cordate ovate leaves, which was also new to me, we called it the Apple-gum.' (22 May).

On 22 May they discovered a westerly flowing river which he called the Lynd. They then followed this river as it cut its way through mountainous country, sometimes basaltic, sometimes granitic. As they moved northward the vegetation changed and Leichhardt commented on the many new trees and shrubs which they encountered. Whenever small river flats occurred boxes were common, fringing the channels were large drooping teatrees (*Melaleuca argentea* W. Fitzg.), casuarina (*C. cunninghamiana* Miq.), sareocephalus [*Naucllea orientalis* (L.) L.], flooded gum (*Eucalyptus camaldulensis* Dehnh.) and a terminalia (*Terminalia platyphylla* F. Muell.) 'with spreading branches and broad elliptical leaves' (27 May). Several other species, often with edible fruit as well as gum, occurred throughout the area. These were probably *T. aridicola* Domin, *T. platyptera* F. Muell. and *T. subacroptera* Domin. Leichhardt tried most fruits that he came across e.g. the 'fleshy fruit of the Severn tree [*Petalostigma banksii* and/or *P. pubescens* Domin] had an exceedingly bitter taste which was also imparted to the flesh of the emu' (19 July). However not all fruits were as bad as can be seen by his description of the 'Bread tree of the Lynd' (*Gardenia edulis* F. Muell.). 'There was another small tree, the branches of which were thickly covered with bright green leaves; it had round inferior fruit, about half an inch in diameter, which

was full of seeds: when ripe, it was slightly pulpy and acidulous, and reminded me of the taste of the coarse German rye bread . . . I ate handfuls of the fruit without the slightest inconvenience' (31 May). On the other hand the fruits of the nonda (*Parinari nonda* F. Muell. ex Benth.) whose 'pericarp is very mealy and agreeable to eat and would be wholesome, if it was not so extraordinarily binding' (3 July).

Gradually the box flats became more frequent although rocky ranges still had to be crossed, but by the beginning of June the country was becoming a more open forest with ironbark (*Eucalyptus crebra*) and lanceolate box (? *E. leptophleba* F. Muell.) as the dominants. Around some of the lagoons which were now more frequent, he found 'an elegant *Acacia* about thirty or thirty-five feet high, grew on its small flats: it had large drooping glaucous bipinnate leaves, long broad pods and oval seeds, half black and half bright red', (*Adenantha abrosperma* F. Muell.) (2 June). Silver-leaved ironbark (*Eucalyptus shirleyi*) was common on the ridges.

Between 5 June and 15 June they travelled chiefly over river flats or undulating open forested country. Where the sandstone or granite ridges encroached on the river then they travelled along its bed. Channels along the river were covered by a myrtle [probably *Melaleuca argentea* or *M. nervosa* (Lindley) Cheel or a form of it], while the box dominated the river flats although some apple gum and Moreton bay Ash (*Eucalyptus confertiflora* and *E. tessellaris*) were also present. The narrow-leaved ironbark (*E. crebra*) was more frequent on the ridges.

On 16 June they finally turned westward near the junction of the Lynd and the Mitchell and camped at what is now known as Highbury lagoon — he wouldn't recognize it now as rubber vine [*Cryptostegia grandiflora* (Roxb.) R. Br.] has taken over! As he noted, some *Nymphaea gigantea* Hook. and *Nymphoides* Seguiet sp. were present. He encountered fine specimens of 'bloodwood, stringybark and box' (16 June). In 1985 the dominants were *Eucalyptus micronera* Maiden & Blakely, *E. polycarpa* F. Muell. and *E. tetradonta* along the river, whilst *E. dichromophloia* F. Muell. and *E. papuana* F. Muell. were the dominant eucalypts in the open forest away from the river. *Melaleuca viridiflora* Sol. ex Gaertner and *Petalostigma banksii* were common understory elements, as well, small thickets of *Carissa lanceolata* R. Br. often occurred. These gave way to flat grassy plains which 'were bounded by an open forest of the acacia of the Expedition Range', (? *Acacia holosericea* A. Cunn. ex G. Don) from which they collected good supplies of gum which they then ate. *Acacia holosericea* was a very common wattle, particularly along creeks or where moisture had collected. He noted groves of a bipinnate acacia with articulate pods and large brown seeds. A grove of wattles resembling *Acacia bidwillii* Benth. were present near the entrance to Highbury Station.

During most of the next week the party often travelled up to several miles away from the river in order to avoid the worst creeks and gullies, hence the country that they traversed was chiefly open forest interspersed with 'immense uninterrupted flats with very clayey soils' (19 June). Leichhardt commented on the regular angular-shaped cracks which occurred on these grassy plains and which after light falls of rain are

a most beautiful country, plains forestland and chains of lagoons covered with Lotus united to make it extremely favourable for pasturing. Blackfellows very numerous.

At this camp the blackfellows attacked us at night, killed Mr Gilbert and wounded Roper and Calvert severely.

28th June Teatree lagoon camp
Lagoons plains and forestland
lagoons covered with lotus
lagoons with a big creek or river which I consider to be the Nassau

a loose Sandstone cropping out in the main and subordinate creeks. Along the creek the Ulloa Myrtle very frequent - and a leafless tree resembling in its appearance the Casuarina

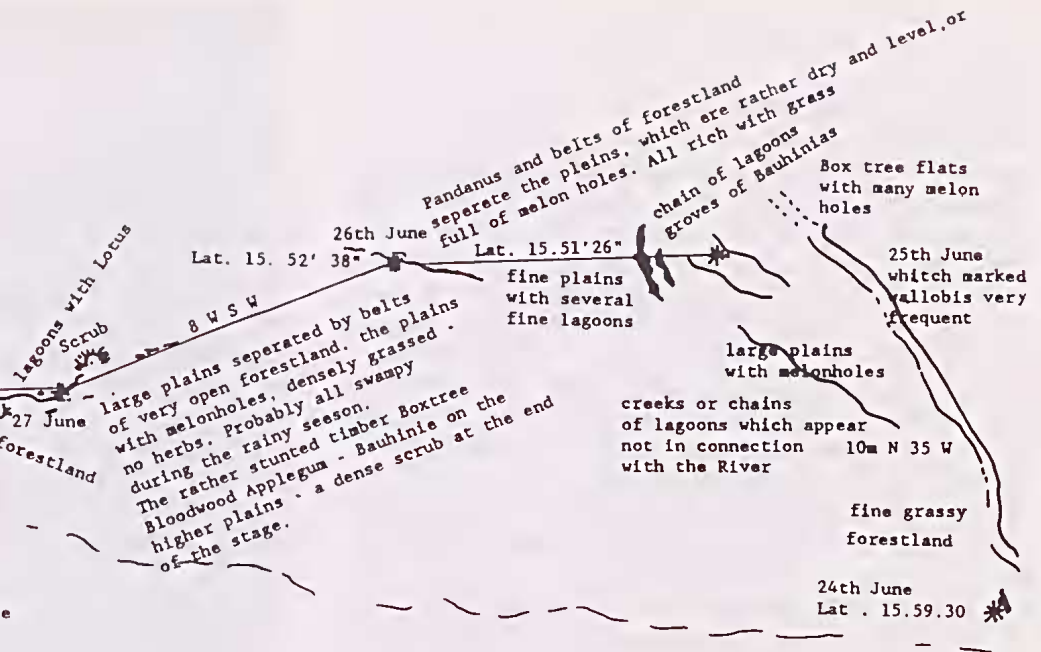


Fig. 2. Sketch map covering the route traversed by Leichhardt and party 24-28 June 1845. (Redrawn from field note books).



Fig. 3. The lagoon on 'Dunbar' Station, near the Nassau River beside which John Gilbert was buried.

fringed by young grass. Associated with these plains were many bauhinias [*Lysiphyllum cunninghamii* (Benth.) de Wit] 'covered with red blossoms' (20 June). *Eucalyptus confertiflora*, occasional *E. terminalis* F. Muell., *Terminalia* L. spp., *Dolichandrone heterophylla* (R. Br.) F. Muell., *Grevillea* R. Br. ex Salisb. spp., particularly *G. striata*, *Hakea* Schrader spp., *Melaleuca viridiflora*, *Petalostigma banksii*, *Excoecaria parviflora* Muell. Arg., and *Cochlospermum gilvrai* are common today. Around the lagoons, which

were common in the area, was grewia (*Grewia retusifolia* Kurz) whose fruits when boiled produced a 'beverage which... was at all events the best we had tasted on our expedition' (19 June), *Melaleuca* spp., *Nauclea orientalis*, *Barringtonia acutangula* (L.) Gaertner which he termed the myrtle mangrove, and *Pandanus spiralis* R. Br. As well lotus (*Nymphaea gigantea*) was very common in all the lagoons whenever water was present. When they reached what is now known as Mosquito Lagoon on 21 June they surprised some

natives who left behind a net full of *Nymphaea* L. seeds, which Leichhardt's party then took with them.

The diversity of trees and shrubs on the banks of the Mitchell increased as they moved westward, particularly as the flood plain widened after the junction with the Palmer. A lot of the area appeared to be seasonally inundated. *Corypha* (*Corypha utau* Lam.) now became common, as did the cluster fig (*Ficus racemosa* L.).

On 25 June, (Fig. 2) Leichhardt decided to turn westward and so leave the Mitchell. As he had passed the latitude of the Nassau by going west he should reach the coast and be able to travel around the Gulf. He now entered quite different country which was difficult to traverse because of the numerous water-courses running virtually parallel to one another, the numerous small lagoons and patches of scrub which were difficult to penetrate with the cattle. Leichhardt described the area traversed: 'we past some very fine and long water-holes with reeds or covered with the white species of *Nymphaea*. Groves of *Pandanus spiralis* were growing along the banks. Fine grass full of melon holes but well grassed were separated from each other by belts of forest land' (26 June).

The description by Gilbert (1845) probably indicated the feelings of the rest of the party a little better, 'at first through a very thick forest of small timber [*Melaleuca acacioides* and *M. foliolosa* often form dense thickets in this area] for a mile leaving the thick brush on our right, then we again came upon thinly wooded country for 2 miles, then upon a long narrow lagoon, which took us nearly a mile to get to the end of it, when we came upon a second, upon getting clear from this we had about 2 miles of a plain to cross, the last mile through an open forest and we camped at a miserably small water-hole in a shallow creek.' *Eucalyptus chlorophylla* Brooker & Donc, *E. microtheca* F. Muell. and to a lesser extent, *E. aff. papuana*, *E. confertiflora* and *E. terminalis* were the main eucalypts encountered in this area. *Terminalia platyptera*, *Lysiphyllum cunninghamii*, *Pandanus spiralis* and *Grevillea striata* were also quite common in the open forested areas.

This was the pattern till 28 June when after crossing many gullies they finally crossed the main branch of the Nassau. Here Leichhardt recorded for the first time finding 'a small myrtle tree with smooth bark' (*Melaleuca symphiocarpa* F. Muell.), also described on his sketch map (Fig. 2) as the Ulloa Myrtle, and 'a leafless tree of the appearance of *Casuarina*' (*Calycopelplus casuarinoides* L. S. Smith). They then came to a chain of shallow lagoons many of which were dry, but they camped near one 'surrounded by a belt of small teatrees with stiff broad lanceolate leaves' (28 June).

That evening, shortly after 7 pm, spears were thrown into the camp. Gilbert died instantly. Roper and Calvert were severely wounded. Dalton's (1988) reconstruction of the events of that evening suggests that this was a punishment spearing. The spears used were barbed, a style used today (J. C. Taylor, pers. comm.) by the Mitchell River aborigines solely for punishment. They are meant to wound, targeting particularly the thighs and buttocks. They are not meant to kill. It appears that Gilbert collected a single spear in the neck as he stooped to come out of his tent. Although he does briefly consider other possibilities Dalton (1988) feels



Fig. 4. Marker erected at the site of the grave.

that this was a retaliatory raid related to the removal, on 21 June, of the lotus seeds at Mosquito Lagoon. This was done without prior consent from their owners. He further suggests that the numerous fires observed in the close vicinity of the party over the preceding days were warning fires made after an attempt had been made by the aborigines to hold a discussion with the party. They had been rebuffed by Leichhardt discharging a gun.

Gilbert was interred on 29 June and a large fire built over the grave 'for preventing the natives from detecting and disinterring the body' (29 June). Many lagoons in the area have since been labelled Gilbert's lagoon. The clue to which lagoon was given by the last entry in Gilbert's (1845) diary: 'we crossed a considerable creek, or as the doctor thinks the Nassau running to the westward from this the remaining part of the stage was through a beautiful open country thickly studded with lotus ponds at one of which we camped. Native fires in every direction and very near us, but none of the natives seen, about a mile to our right appeared the dark line of a scrub, most probably edging the creek we crossed.' If Leichhardt's distances and readings are relatively accurate and are correlated with the descriptions of the countryside traversed then only one lagoon (Fig. 3), fits this description given by Gilbert. Several attempts were made to locate the grave prior to success in October 1985. Using a caesium magnetometer which he had developed, Dr J. Stanley (University of New England) covered the area on a grid pattern and eventually located an area where an intense fire had been lit. This instrument allows very small changes in

the earth's magnetic field, such as occurs after clay is baked, to be detected. The area indicated was then partially excavated so as to remove the top soil deposited in the past 140 years until a baked clay layer, such as would be expected after an intense fire, was found. The outline of the area was in keeping with a large man made fire which was kept burning for several days. A marker was constructed by the members of 2/4 RAR and erected at the site (Fig. 4).

Trees and shrubs currently adjacent, or in close proximity, to this lagoon are; *Eucalyptus confertiflora*, *E. microtheca*, *Melaleuca viridiflora* (2 variants), *M. stenostachya* S. T. Blake, *Barringtonia acutangula*, *Grevillea striata*, *G. parallela*, *Carissa lanceolata*, *Excoecaria parvifolia* and *Erythrophloeum chlorostachys* (F. Muell.) Baill.

On 1 July, the party left the lagoon having allowed Calvert and Roper to recover slightly from their wounds. Leichhardt now changed his routine and whenever possible covered 10–14 miles per day, travelling all day if necessary. They crossed extensive box flats alternating with undulating country, numerous shallow lagoons and watercourses. He continued to sample fruit and tried out ashes with which to treat the wounds. He noted that the rawsberry jam tree [*Cathormium umbellatum* (Vahl) Kosterm.] produced a particularly good lye for dressing wounds. On 12 July 'we crossed a small river with a course W by N, it had a broad sandy bed, numerous pools of water and steep banks covered with drooping teatrees and sarcocephalus (*Melaleuca argentea* and *Nauclea orientalis*), I called it the 'Gilbert'. Port Essington was ultimately reached on 17 December 1845, nearly 16 months after departing from the Darling Downs. Roper and Calvert both appeared to make a complete physical recovery.

Having in effect travelled with Leichhardt for over a month, I have considerable respect, as does Professor Brian Dalton, for his powers of observation and description, although he was well trained in science. The directions given and distances noted on his sketch maps showed remarkable accuracy, considering his traverses were not straight lines; daily distances trav-

elled were an educated estimate. He had no opportunity to reset his chronometer, and his navigational instruments had every opportunity to sustain damage in saddle bags and expedition cases. I was slightly surprised that several trees which were quite common were not mentioned although he had referred to them much earlier, e.g. *Lophostemon grandiflorus* (Benth.) Peter Wilson & Waterhouse and *Planchonia careya* (F. Muell.) Knuth. He also seems to have had some problems with his narrow-leaved grevillias!

Considering that they traversed a lot of country completely uncharted as far as Europeans were concerned, is it surprising that considerable reconnoitring was required? Leichhardt needed to be firm to get through the inhospitable country and his only empathy appeared to be with Gilbert, yet he was not without some compassion. He frequently stopped to rest the foot-sore animals in the first six months and then after Gilbert's death, although he may at times have appeared heartless, he did stop and allow the wounded to rest and recuperate whenever he felt it was safe for the party to do so. Current survival tactics in the Army are to consider the group as a whole rather than the individual (L. J. Hiddens, pers. comm.) Lack of preparation for waterless tracts seems to me to have been his main defect as an explorer. But how do you manage when you are also driving stock, you can't carry sufficient water for them too?

Note

1. All subsequent quotes, unless otherwise indicated, refer to this journal. The date is placed in parenthesis.

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