Western Tasmania
A Place of Outstanding Universal Value
Proposed extensions to the Tasmanian Wilderness World Heritage Area

Geoff Law - September 2009
Objective

This report describes the World Heritage values of the Tasmanian Wilderness; explains the meaning of World Heritage; identifies shortcomings in the boundaries of the Tasmanian Wilderness World Heritage Area; and proposes extensions to the World Heritage Area to ensure that all World Heritage values are protected and conditions of integrity are met. This proposal draws on the large body of work — including many reports by government agencies — attesting to the outstanding universal values of Western Tasmania as a whole, and not just those parts within the TWWHA.

This is not a comprehensive proposal of new reserves across Tasmania. That has been described by Environment Tasmania and the Wilderness Society. The areas identified here are those places that satisfy the World Heritage criteria and conditions of integrity as described in the Operational Guidelines of the World Heritage Convention. The report does not address land tenure except to say that the identified World Heritage extensions should be protected and managed in accordance with the rights and responsibilities of the areas’ Aboriginal traditional owners. Conserving the areas’ outstanding natural and Aboriginal cultural values in perpetuity requires a status of protection equivalent to IUCN categories 1 or 2, such as national park.

The Tasmanian Wilderness is one of the world’s great temperate wilderness areas. Its outstanding universal values have been recognised through inscription of 1.38 million hectares on UNESCO’s World Heritage List. A World Heritage Area must have outstanding universal values as defined by the World Heritage Committee’s operational guidelines. It must also satisfy the guidelines’ conditions of integrity.

The recognised outstanding universal values of the TWWHA occur in its primitive flora and refugia; highland vegetation; rainforests; tall-eucalypt forests; buttongrass moorlands; glaciated landscapes; areas of karst that include spectacular and intricate caves; habitats of rare, ancient, unusual or threatened species of flora and fauna; coastal landforms and ecosystems; rivers, lakes and wetlands; and Aboriginal cultural heritage, particularly the records of an ancient way of life found in the caves and coastlines of Western Tasmania.
Western Tasmania is one of the world’s great temperate wilderness areas. Its outstanding universal values have been recognised through inscription of 1.38 million hectares of UNESCO’s World Heritage List.

This World Heritage Area is a bulwark of the Tasmanian economy, generating over 5100 jobs and over $200 million in income annually for the state of Tasmania. A World Heritage Area must have ‘outstanding universal values’ and satisfy conditions of integrity as defined by the World Heritage Committee. The officially recognised outstanding universal values of the Tasmanian Wilderness World Heritage Area (TWWHA) are its primitive flora, rainforests, moorlands and high-altitude vegetation; glaciated landscapes; karst formations that include intricate and beautiful caves; tall-eucalypt forests; wild, rugged and biodiverse coastlines; rivers, lakes and wetlands; habitats of rare or threatened species; and ancient Aboriginal heritage, found in remote caves and on the coastlines of Western Tasmania.

But the World Heritage area is incomplete.

Attributes of documented outstanding universal value that occur in Western Tasmania outside the TWWHA include:

- Australia’s greatest tract of cool-climate rainforest (in the Tarkine);
- the most biodiverse rainforest in southern Australia (Mt Dundas);
- spectacular glaciated mountain landscapes draped with conifers and beech trees with ancient ancestry (the Tyndall Range, Mt Murchison and the Mt Field National Park);
- several significant ancient stands of Huon pine, king billy pine and pencil pine;
- one of Australia’s most important native grasslands (the Vale of Belvoir);
- some of Australia’s most spectacular and beautiful caves (Mole Creek);
- some of Australia’s deepest caves (Mt Field National Park and the Florentine and Junee valleys);
- large tracts of the tallest forests in the Southern Hemisphere, including the world’s tallest and most massive hardwood trees (Styx, Florentine, Weld and other valleys);
- the lagoon, beaches, headlands and moorlands at Melaleuca and Cox Bight;
- a spectacular coastline of pristine beaches, headlands, lagoons and middens (Wanderer Wilderness and Tarkine);
- major wild-river catchments (Wanderer Wilderness and Tarkine);
- populations of disease-free Tasmanian devils buffered from disease-ridden areas to the east;
- habitats of other threatened species such as the Tasmanian wedge-tailed eagle, the giant freshwater crayfish, the spotted-tailed quoll, the white goshawk and invertebrate fauna of ancient ancestry;
- caves that contain artefacts, hand stencils, human remains and other signs of Aboriginal occupation that stretch back over 30,000 years;
- middens, hut depressions, stone quarries and artefact scatters that show how Aboriginal people practised a hunter-gatherer lifestyle in a harsh coastal environment;
- The site (Recherche Bay) where the first friendly interactions between Aborigines and Europeans occurred, which is also a key site of early global colonial exploration and scientific endeavours in the southern hemisphere.

These World Heritage attributes are threatened — and, in many cases, being actively destroyed — by logging, uncontrolled use of off-road vehicles, vandalism, poaching, poor management, state-sanctioned destruction of habitat, the proposed Tarkine road, and climate change. The integrity of the Tasmanian Wilderness World Heritage Area itself is under threat from some of these activities — particularly logging along its eastern and northern boundaries, and the impacts of climate change on coastlines and fire-sensitive species.
Numerous government reports, experts and international authorities have called on the Australian and Tasmanian governments to extend the TWWHA to incorporate adjacent areas of wilderness and Aboriginal heritage. The latest of these was made by the World Heritage Committee in July 2008.

Proposed extensions and buffer zones to the World Heritage Area

Proposed extensions to the TWWHA are shown on the map opposite. They include the Vale of Belvoir/Black Bluff area, the Mole Creek karst, the Great Western Tiers, the tall-forest valleys of the south, the Mt Field National Park, reserves in the Recherche Bay area, Melaleuca, the Wanderer Wilderness (Southwest Conservation Area), the Western Mountains (including the Tyndall Range and Mt Murchison) and the Tarkine.

Protecting the outstanding universal values and integrity of Western Tasmania in this way would bring the TWWHA to 2.19 million hectares, or 32% of the state.

In addition, it is proposed that a further 22,000 ha of existing formal conservation reserves be managed as a buffer zone under the Management Plan for the TWWHA, and a further 33,000 ha of State Forest be rehabilitated and managed as a buffer zone. In this rehabilitation forest, no further clearfelling or plantation establishment would occur, though selective small-scale extraction of specialty timbers would be permitted.

The land tenure of the proposed extensions and buffer zones is shown in Table 1.

Of the 806,000 of proposed World Heritage extensions:

- 78% are already formal conservation reserve;
- Nearly 7% consists of informal conservation reserve;
- 15% consist of other public land, largely State Forest.

Therefore, approximately 85% of the proposed World Heritage extensions are already reserved. World Heritage listing of these reserves will facilitate the state of Tasmania obtaining funding from the federal government to manage these reserves.
No private land, freehold land or shacks are proposed as extensions to the TWWHA without permission from the owner (the Tasmanian Land Conservancy has given permission for its properties on the Vale of Belvoir and at Recherche Bay to be proposed as World Heritage extensions). No easements of operating railways or highways are proposed as World Heritage extensions, though some such easements are straddled by the proposed extensions. The Henty mine and Savage River mine and pipeline are not proposed as extensions.

**Economic opportunities**

The proposed extensions straddle several major roads and highways, including the Murchison Highway, Poatina Road, Anthony Highway, Lake Dobson Road (Mt Field National Park), the Gordon River Road and the road to Corinna on the Pieman River.

If adopted, this proposal would therefore create at least five new gateways to the TWWHA, creating new development opportunities for sustainable tourism based on Tasmania’s World Heritage image. Such developments would occur in regional parts of Tasmania that have suffered drains on their populations in recent decades due to the shedding of jobs in industries such as mining and logging.

Towns that would benefit economically from this proposed extension of the TWWHA include Poatina, Strahan, Queenstown, Tullah, Rosebery, Zeehan, Savage River, Waratah, Smithton, Wynyard, Mole Creek, Deloraine, Geeveston, Dover, Lune River, Tarraleah, Wayatinah, Maydena, National Park and Westerway. Some centres have already developed — or are in the process of developing — infrastructure whose economic value this proposal will enhance. Waratah, for example, can expect to benefit significantly from World Heritage listing of the recently established walking track to Philosophers Falls.

Above all, the proposed World Heritage extensions would confer the protection that the awe-inspiring, diverse and fragile wilderness of Western Tasmania deserves.

---

### Table 1

<table>
<thead>
<tr>
<th>Land category</th>
<th>Area (hectares)</th>
<th>Percentage of Tasmania’s land area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Tasmanian Wilderness World Heritage Area (1989 boundaries)</td>
<td>1,383,865</td>
<td>20.3%</td>
</tr>
<tr>
<td>B. Proposed extensions – reserves already managed under WH Plan;</td>
<td>20,114</td>
<td>0.3%</td>
</tr>
<tr>
<td>C. Proposed extensions – other formal conservation reserves</td>
<td>609,000</td>
<td>8.9%</td>
</tr>
<tr>
<td>D. Proposed extensions – informal conservation reserves</td>
<td>53,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>E. Proposed extensions - State Forest and other public land</td>
<td>124,000</td>
<td>1.8%</td>
</tr>
<tr>
<td>F. Total proposed extensions (= B + C + D + E)</td>
<td>806,000</td>
<td>11.8%</td>
</tr>
<tr>
<td>G. Total proposed new TWWHA (= A + F)</td>
<td>2,190,000</td>
<td>32.2%</td>
</tr>
<tr>
<td>Additional areas of existing reserve to be managed under Management Plan for TWWHA as buffer zones</td>
<td>22,000</td>
<td>0.3%</td>
</tr>
<tr>
<td>Additional areas of State Forest managed for rehabilitation as buffer zones (inc 57,000 hectares of informal reserve)</td>
<td>33,000</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total area managed for enhancement of TWWHA</strong></td>
<td><strong>2,245,000</strong></td>
<td><strong>32.9%</strong></td>
</tr>
</tbody>
</table>

Totals and sub-totals are rounded to nearest 1000; rounding of percentages has affected totals; informal reserves in D are mostly State Forest.
Western Tasmania

A Place of Outstanding Universal Value

Proposed extensions to the Tasmanian Wilderness World Heritage Area

Wilderness – a large tract of natural country remote at its core from settlement and roads – is an asset of great spiritual and scientific value to the world. The importance of Tasmania’s wilderness increases daily as more and more wild places the world over are destroyed by exploitation of their natural resources.

Western Tasmania is one of three great temperate wilderness areas in the Southern Hemisphere whose outstanding universal value to humanity has been recognised internationally through its inscription on the World Heritage List.1, 3

It is a land of rugged mountains and glacial lakes; turbulent rivers that flow through deep gorges; ancient forests that contain giant trees; intricate and beautiful systems of caves; a coastline of towering cliffs, sweeping beaches, prominent headlands, and sheltered coves; and habitats of rare, threatened or extraordinary flora and fauna. A record of Aboriginal occupation of at least 35,000 years is contained in its caves. Middens, ancient hut-sites and rock carvings on the coast attest to the hunter-gatherer way of life of these hardy people.

This value has been recognised for several decades. Long, hard campaigns have been fought to protect Tasmania’s wilderness. Despite serious losses — such as the inundation of Lake Pedder and the logging of the lower Picton valley — large tracts of primitive country have been kept free of development. Most of Tasmania’s wild, ancient landscapes — including forests, mountains, gorges, coastlines and moorlands — have remained intact.

The special qualities of this island wilderness — and the high-profile, spirited battles to protect it — have brought it to the attention of the rest of Australia and the world. In the late 1970s, conservationists began to call for Tasmania’s western wilderness areas to be listed as World Heritage.

World Heritage

The World Heritage List is established under the World Heritage Convention, an international treaty signed by the Australian Government in 1974. The operation of the Convention is carried out by the World Heritage Committee, which consists of the representatives of 21 of the countries that are signatories to the World Heritage Convention. In 2009, there were 186 such countries.5

The TWWHA was inscribed on the World Heritage List in 1982 and extended in 1989. It occupies 1.38 million hectares, or 20% of the area of Tasmania. The Tasmanian Wilderness is a ‘mixed site’, and in 1989 it satisfied all four criteria for natural heritage and three of the criteria for cultural heritage.1

The intense campaign to protect the Franklin River from being dammed to produce hydro-electric power led to the listing of part of Tasmania’s wilderness as World Heritage in December 1982. The World Heritage Area is today seen as the jewel in the crown of Tasmania’s natural environment and a source of pride for all Tasmanians. Photo: Peter Dombrovskis.
Outstanding universal values

To be listed as World Heritage, a property must have ‘outstanding universal values’ recognised by the World Heritage Committee and must also satisfy conditions of integrity.\(^6\)

The World Heritage Committee has drawn up precise criteria for the inscription of a property on the World Heritage List. In brief, to qualify for inscription on the World Heritage List, a property must meet one or more of the following criteria by:

i. being a masterpiece of human creative genius;

ii. exhibiting an important interchange of human values on developments in architecture, technology, arts, town-planning or landscape design;

iii. bearing unique or exceptional testimony to a cultural tradition or civilization;

iv. being an outstanding example of a type of building, other artifice, or landscape which illustrates one or more significant stages in human history;

v. bearing an exceptional testimony to traditions, cultures or land-uses that have either disappeared or become vulnerable under the impact of irreversible change.

vi. being directly or tangibly associated with events or living traditions, with ideas, with beliefs, or with artistic and literary works of outstanding universal significance.

vii. containing superlative natural phenomena including areas of exceptional natural beauty;

viii. representing major stages of Earth’s history;

ix. representing significant ongoing ecological processes;

x. containing crucial habitats for the conservation of biological diversity and protection of threatened species.

A full list of the criteria for World Heritage listing and the conditions of integrity is provided in Appendix 1.\(^6\)

These qualities are not individually parcelled up or quarantined from each other. Rather, the special characteristics of Western Tasmania are frequently juxtaposed, interrelated and interacting so that one value is reinforced by the other, creating an extraordinary collage of landforms, biodiversity and natural beauty. Together, they constitute the recognised ‘outstanding universal values’ of the Tasmanian Wilderness World Heritage Area.

The quality over-arching these individual values is that of wilderness.\(^6\) It is the wilderness condition of Western Tasmania that has preserved its landscapes, rivers, forests, lakes, coastline and wildlife. It is the wilderness condition of Western Tasmania which unifies its disparate natural values under the single heading ‘The Tasmanian Wilderness World Heritage Area’. And it is this wilderness condition which ensures that the World Heritage Committee’s crucial conditions of integrity can ultimately be met.

However, since 1989 there have been many alarming indications that, for all of its splendid characteristics, the TWWHA as currently defined and listed is far from complete and that its integrity is under serious threat due to inadequate boundaries.

Integrity and completeness of the Tasmanian Wilderness World Heritage Area

According to the Operational Guidelines of the World Heritage Convention, ‘integrity is a measure of the wholeness and intactness of the cultural and/or natural heritage and its attributes.’

There have been numerous reports and assessments — many of them commissioned by government — which have identified significant problems relating to integrity and completeness of the TWWHA.\(^9,10,11,17\) This body of work compellingly demonstrates that the boundaries of the World Heritage Area are insufficient to protect the outstanding universal values of Western Tasmania.

In particular, several reports have argued that the integrity of the TWWHA is under threat from encroaching logging in unprotected wilderness valleys in the eastern part of the...
Tasmanian wilderness. These valleys contain forests whose World Heritage values have been recognised and included within the TWWHA; however, the meandering boundaries of the TWWHA have excluded crucial parts of those forests. Such valleys include those of the Styx, middle Huon, Weld, Florentine and upper Derwent rivers.

The serious deficiencies of the boundaries of the TWWHA have manifested in a number of ways.

Conflict between the logging industry and conservationists has occurred in tall-eucalypt forests in wilderness areas immediately north and east of the TWWHA. Significant tracts of outstanding tall-eucalypt forest — and superlative examples of giant trees — have been destroyed. Karst, scenery, glacial deposits and Aboriginal heritage are also threatened by logging. Aboriginal rock carvings have been vandalised on the Tarkine coast, where uncontrolled off-road vehicles are also degrading middens. A poorly conceived proposal to build a new section of road in the Tarkine has been pushed by Forestry Tasmania. And the high-profile political battles about the future of Tasmania’s wilderness have driven tens of thousands of people onto the streets of cities in Tasmania and the Australian mainland as part of massive protests against the destruction of Tasmania’s wilderness.

World Heritage authorities — including the World Heritage Committee itself — have frequently written to the Australian Government seeking assurances about the management of these issues. The latest of these calls was made by the World Heritage Committee itself in July 2008 when it requested that the Australian Government ‘consider, at its own discretion, extension of the property to include appropriate areas of tall-eucalyptus forest, having regard to the advice of IUCN’ as well as adjacent Aboriginal heritage.

Clearly, the Tasmanian Wilderness World Heritage Area is incomplete. For each of the recognised outstanding universal values listed above, places of comparable significance — and in some cases, greater significance — can be found outside the TWWHA. The outstanding universal values of Western Tasmania are not fully protected by the TWWHA’s boundaries. And the integrity of the TWWHA itself is under threat.

In addition, the Australian Government has warned that the TWWHA is in jeopardy from the consequences of climate change. Rising sea levels threaten coastal features, vegetation and cultural heritage; changing fire regimes threaten rainforests, alpine vegetation and tall-eucalypt forests; changing rainfall will affect lakes, rivers and karst. Replication of fragile attributes — particularly of rainforest and alpine vegetation — within the TWWHA can help ensure their long-term survival.

To enhance the integrity and long-term future of the TWWHA, it is necessary to examine each of the recognised World Heritage values of the TWWHA to identify where else those values occur and how World Heritage boundaries can be modified to protect the outstanding universal values of Western Tasmania.
The Outstanding Universal Values of the Tasmanian Wilderness

1. Primitive flora and refugia – including rainforests – whose ancestry goes back to or pre-dates the ancient continent of Gondwana

Trees and shrubs whose ancestors evolved in ancient super-continents are today found on land masses – including Tasmania – that are separated by vast oceans. Crucial species include myrtle, deciduous beech, king billy pine, pencil pine and Huon pine. They are found in highlands and rainforests.

However, many of Western Tasmania’s most superlative tracts of rainforest and ancient species are not found within the World Heritage Area, as Map 1 shows.

The map shows that Tasmania’s greatest contiguous tract of temperate rainforest occurs in the Tarkine. This is backed by the government review of the vegetation of the flora of the TWWHA, which says ‘the best examples and largest tracts of tall callidendrous (cathedral-like) rainforest occur outside the TWWHA in the Savage River area (the Tarkine) of northwest Tasmania’. This is also the largest tract of temperate rainforest in Australia.

West of the TWWHA are the forests of Mt Dundas – ‘a particularly significant refuge for temperate rainforest with the richest assemblage of temperate rainforest species known from any area in Australia’. This area is also ‘exemplary’ as a wet refuge for ancient conifers such as king billy pine. On Mt Read is a stand of Huon pine that is arguably the best site in the southern hemisphere for research of past climates by studying rings from ancient trees.

Adjacent to the TWWHA are undisturbed rainforests that extend all the way to the rugged western shore of Tasmania in the Spero and Wanderer catchments. Significant stands of Huon pine line the banks of such rivers.

Many of Tasmania’s ancient plant-forms occur in fossils, significant deposits of which occur just outside the TWWHA at Coal Head on Macquarie Harbour, Little Rapid River in the Tarkine, and the Lea River. Tasmania also has Australia’s richest source of peatlands and lakes for palynological research — the study of contemporary and fossilised pollen and spores. This discipline can help scientists reconstruct the histories of plants, eco-systems and climates. Lake Selina, between Mt Murchison and the Tyndall Range, unlike most other Tasmanian lakes, was not glaciated in the last ice age and provides a record of nearby vegetation dating back over 100,000 years — arguably the best record of its kind in Australia.
Most of Tasmania’s ancient forms of plant life evolved in wetter climates than those of today, and with very low levels of fire. They are therefore highly vulnerable to fire. A single intense bushfire can permanently wipe out entire stands. There have been many fires lit by arsonists, exploiters and land managers in Western Tasmania over the past 150 years which have killed great tracts of ancient trees (including one third of the king billy pines), leaving dead sun-bleached trunks of conifers emerging from the nondescript scrub species which have replaced them. Such threats are now seriously exacerbated by climate change. The sensitivity of these ancient types of conifers, high-altitude heaths and rainforest species to fires induced by climate change is listed by the Australian Government as ‘extreme’. The long-term conservation of this fragile vegetation demands the protection of multiple stands in a variety of settings and locations.

The TWWHA clearly does not contain Tasmania’s largest tract of lowland rainforest, its most diverse rainforest, all the major stands of ancient tree-species, or most of Tasmania’s fossil sites. The integrity of Tasmania’s outstanding primitive flora would be greatly enhanced by extending the TWWHA to incorporate and replicate the full diversity of settings — riverine, lowland, montane — in the stunningly beautiful places identified above.
2. The glaciated landscape of the Tasmanian Wilderness is an outstanding example of a major phase in the evolutionary history of the Earth

Tasmania contains the most glaciated landscape in Australia. During ice ages that occurred between 10,000 and two million years ago, great glaciers fashioned the mountain environments we see today, sculpting serrated cliff-faces, gouging hollows, and damming streams to create the multitude of beautiful lakes that now characterise the area. These landscapes provide an archive of information on the timing and magnitude of past changes to the Earth’s climate that are essential to understanding current changes in proper context and satisfy World Heritage criteria vii and viii.

Tasmania shows evidence of at least six separate glaciations. Ancient features are not being rapidly re-shaped by volcanic or tectonic activity, as they are in New Zealand and the Andes. In addition, Tasmania’s marginal climatic setting with respect to Ice Ages means that features of glacial origin have persisted rather than been overridden by subsequent glaciations. Tasmania therefore displays one of the most complete and sensitive records of glaciations in the southern hemisphere, including the only evidence outside Antarctica for the initial onset of glaciation in southern polar regions around 30 million years ago. No other southern temperate land mass has a glacial record that even closely approaches such antiquity.

Yet some of the most outstanding of these glacially-formed landscapes are not wholly — or, in some cases, even partially — within the World Heritage Area. Ice that funnelled through the Lake St Clair glacial trough from the Central Plateau’s 500-metre-thick ice cap formed Australia’s only piedmont-type glacier, but the unique moraine sequences that it formed in the Navarre Plains area remain outside the TWWHA.

The ice cap which carved the iconic features of Cradle Mountain and Dove Lake extended west over Granite Tor and parts of the Vale River catchment. Black Bluff is the north-west...
The Tyndall Range displays some of the most spectacular glacial landforms in Tasmania. Here, a 200-metre glacial headwall looms above beautiful Lake Huntley. Photo: Rob Blakers.
extremity of glaciation in Tasmania. These landscapes are therefore intimately related to that of the TWWHA, whose straight-line boundaries do not protect the integrity of this outstanding system.\textsuperscript{17} West of the TWWHA, the Tyndall Range and Mt Murchison have experienced multiple glaciations and the highest precipitations and throughput of ice in Tasmania. They display spectacular glacial landforms such as cirques, glaciated valleys, grooves, striated pavements, crescentic gouges, lunate fractures, moraine ridges up to 200 metres tall, and glacial erratics.\textsuperscript{8, 17}

Typically, it is downstream sediments rather than upstream erosion that hold the key to understanding glacial history. The glaciers responsible for producing spectacular mountain landscapes also extended well down valleys that today are blanketed in forest, as in the Weld, middle Huon, Florentine, Tyenna, Derwent, Navarre, Mersey, Vale and Eldon catchments — outside the TWWHA. Some of these landscapes are under threat from road-building and logging.\textsuperscript{8, 19}

The Vale of Belvoir is a grassy highland valley with a glacial karst landscape whose World Heritage values are well documented. Photo: Matt Newton.

All of the above glacial landscapes have provided insights into Earth’s history that are of global significance, and their protection will allow the archive they offer to be further studied as new techniques of analysis become available. Extension of the TWWHA to protect them would greatly enhance the integrity of its outstanding glacial landscapes.

3. Treeless alpine and sub-alpine vegetation and buttongrass moorlands

Tasmania’s alpine and sub-alpine vegetation has evolved in an ancient landscape with low nutrients in wet, wind-swept conditions. Its great diversity presents a richly varying mosaic of colours and textures. The accumulation of large areas of peat in buttongrass moorlands involves a complex combination of climate, drainage, fire history and flora. Habitat is provided for an array of endemic and threatened species. World Heritage criteria vii, viii, ix and x are all met by these intensely beautiful, globally significant environments.\textsuperscript{13}

A major state-government report says that three regions of particular significance to the presentation of Tasmanian alpine and sub-alpine flora are missing from the TWWHA.\textsuperscript{13}

The mountains of the West Coast Range, such as the Tyndalls and Mt Murchison, are cloaked in treeless, windswept vegetation rich in Tasmanian endemics. The high relief of Mt Field National Park provides a diversity of settings for high-altitude specialists, from ancient wind-pruned conifers to ‘bolster heaths’, where cushion plants dam the streams to create interconnected shallow ponds. It is also a stronghold for rare species.\textsuperscript{13}

The third omission is the montane grassland of the Vale of Belvoir. This highland karst valley hosts several rare or threatened plant species. Its highland grasses and herbivores make it a vivid illustration of how so much more of Tasmania looked at the time of the ice-age wallaby hunters of over 20,000 years ago. According to Professor Jamie Kirkpatrick ‘many of the outstanding universal values that resulted in the listing of the TWWHA are best expressed, or only expressed, in this valley’.\textsuperscript{24}

Buttongrass moorlands are very well represented in the TWWHA. However, there are some significant forms of this vegetation that are missing. South of Melaleuca, outside of the TWWHA, are unique peat mounds.\textsuperscript{14} And large tracts of buttongrass occur in the Tarkine and south of Macquarie Harbour in a dynamic relationship with adjacent eucalypts and rainforest.\textsuperscript{8}

At a time of global climate change, replication of ecosystems within large reserves helps their long-term conservation. Addition of all the above areas to the TWWHA would therefore enhance the integrity of these outstanding habitats.
4. Terrain riddled with intricate systems of beautiful caves

Over millions of years, the action of water and ice on large areas of water-soluble rocks in Western Tasmania has created a variety of features both underground and on the surface collectively known as ‘karst’. Such features include sinkholes, springs, underground streams and, of course, caves.

Tasmania’s karst landforms are outstanding examples of ongoing geological processes, satisfying World Heritage criteria vii and viii. Whereas surface records of past land-forming events are usually eroded away, they are often preserved in caves which therefore become important repositories of scientific information. Tasmania’s caves also provide habitat to unique fauna and have preserved ancient Aboriginal heritage.

The TWWHA has some of Australia’s deepest, longest and most impressive caves. Annakananda on the north-east ridge of Mt Anne has passages that are over 370 metres deep. Exit Cave near Lune River has over 25 kilometres of known passages. Other impressive karst systems occur near Mole Creek, on the lower Franklin River, and in the Huon and Weld valleys.

Some World Heritage karst-systems extend outside the TWWHA, as shown on Map 2.

The karst system at Mole Creek is one of the most extensive and well developed in Australia. Marakoopa Cave, within the TWWHA, is a beautifully decorated cave open to public tours. But this system also contains caves of stunning beauty whose entrances or catchments fall outside the TWWHA. The spectacular rimstone pools in Croesus Cave, for example, have been cited in international literature as being superlative examples of this type of formation. Kubla Khan cave has been described as: ‘the most impressive cave-system in Australia … Everything about it is on a grand scale. The caverns are bigger than cathedrals and contain boulders the size of houses, and the fantastic treasures they hide are many times richer and larger than those found anywhere else.’ Impressive caves are still being discovered in the Mole Creek system in State Forest outside the TWWHA. The catchments of Mill and Kansas creeks provide the last opportunity to protect karst drainage systems from high mountain-sources to their discharge into the Mersey River. Yet the integrity of this system is threatened by logging and road-building.
The Weld valley karst has World Heritage value in its own right. Within this part of the TWWHA are caves such as Annakananda, the Weld Arch, Bone Cave and the 236-metre-deep Arrakis on the side of Mt Weld. However, this karst system extends outside of the TWWHA into State Forest that is being subjected to controversial logging and road-building.

In and around Mt Field National Park is the impressive Junee-Florentine karst system, occupying some 18,500 ha and containing hundreds of caves, some over 350 metres deep, making them amongst the deepest known caves in Australia. A major creek tumbles off Mt Field West into the accessible and impressive Growling Swallet before emerging at Junee Cave in a completely different valley after covering over 12 kilometres underground. This is just one example of the enigmatic hydrological relationships occurring in this large and complex karst environment. The Junee-Florentine caves also contain deposits of fossils of extinct marsupial megafauna such as the titan kangaroo (Macropus titan), and crucial Aboriginal heritage.

Many significant features associated with the Huon valley’s Riveaux karst system have been discovered only since 2000. The system has potential for caves more than 500 metres deep. Yet these caves have already proven to contain important palaeo-environmental and cultural archives. Pristine tall-eucalypt forests overlay this karst whose integrity is threatened by logging. Already, a poorly-sited logging road has silted a creek draining into a cave with features of great beauty.

Hastings Cave State Reserve and adjoining national-park land contain numerous cave entrances, sinkholes, shafts and warm springs. The attractive Newdegate Cave is open to guided tours. The addition of this system to the TWWHA would enhance the public’s ability to appreciate the beauty, fragility and significance of the World Heritage area’s karst.

In the Tarkine wilderness of Tasmania’s far north-west karst occurs in magnesite rocks, a phenomenon that is globally rare, whose protection would complement those within the TWWHA.

Inclusion of these diverse, fragile and often spectacular karst systems in the TWWHA would add another intricate layer to the rich overappings of rainforest, tall eucalypts, alpine vegetation, gorges and glacial landscapes in Western Tasmania.

5. The tallest forests in the Southern Hemisphere and the tallest flowering plants on Earth

Western Tasmania contains significant tracts of the tallest hardwood forests on Earth. These include the world’s tallest flowering plants, which are also the tallest trees in the Southern Hemisphere, and the most massive living organisms in Australia. These forests satisfy criteria vii and viii of the World Heritage criteria.

There are individual specimens of Eucalyptus regnans (literally ‘king of the gum trees’) up to 99.6 metres tall. Such monarchs of the forest can also occupy prodigious volumes. Trees more than seven metres in diameter, over 400 cubic metres in volume and over 450 years old have also been recorded.
Other eucalypt species, such as *E. obliqua*, *E. delegatensis* and *E. viminalis* can attain similar dimensions. 25, 26, 51

Giant trees like this inspire wonder and awe in those who see them.

Tall-eucalypt forests are at the ‘front line’ of the eucalypt world which has shadowed, harried and frequently overrun the Gondwanan rainforests in the face of the progressive drying of the Australian continent. And they are a spectacular example of fire-dependent eucalypts able to flourish in a climatic zone in which rainforest can also thrive.12

Recent research has indicated that, per hectare, Tasmania’s forests are some of the densest stands of living carbon on Earth, making their protection a crucial part of the battle to minimise climate change.53

Many tall-eucalypt forests in the Styx, Florentine, Weld, upper Derwent and Picton valleys have already been formally recognised for their outstanding universal values and are part of the TWWHA. The expansion of the TWWHA in 1989 was driven largely by the Australian Government’s intention to protect the World Heritage values of these forests. However, the boundaries of the
TWWHA do not protect the integrity of many of the tall-eucalypt forests within it. The convoluted contour-based boundaries of the TWWHA expose many of its stands of forest to edge effects such as fire, wind and disease. And Map 3 shows that significant tracts of tall-eucalypt forest remain outside of the TWWHA in the following valleys.

The Styx valley contains Tasmania’s greatest concentration of giant hardwood trees (or flowering plants). Over half of the roughly 70 trees that meet official criteria for protection as ‘giants’ occur in the Styx, including giants with evocative names such as Icarus Dream (over 96 metres tall), Gothmog, Methuselah, Gandalf’s Staff, Fangorn and Damocles, as well as the more prosaically christened ‘Big Tree’. The vast majority of these officially-recognised giants occur outside the TWWHA and within one kilometre of planned or recent logging operations.

There is a clear affinity between the Styx valley and Redwood National Park in the USA, inscribed on the World Heritage List in 1980. Redwood National Park contains the tallest living things on Earth, evergreen trees that grow to 115 metres tall. World Heritage protection of the Styx valley would create a Southern-Hemisphere counterpart to the Redwood World Heritage Area.

Part of the TWWHA extends into the catchment of the Florentine valley at Cole Creek which contains one of Australia’s greatest stands of oldgrowth Eucalyptus regnans. However, the Florentine once had much greater tracts of tall forest, with dozens — if not hundreds — of trees that rivalled, and possibly exceeded, the dimensions of the giants of the Styx. Though large tracts have been destroyed by logging over the last 60 years, significant stands remained in 2009, including the 296-cubic-metre Leaning Tower of Bluespur and 346-cubic-metre Still Sorrow.

And significant stands of tall-eucalypt forest occur in a pristine condition in a mosaic of rainforest, eucalypts, moorlands and heath in the Upper Florentine, a gateway to the TWWHA. This area was identified by the government Regional Forest Agreement process as having World Heritage values.

The forest of the Weld valleys sprawls undisturbed between some of the highest and most impressive peaks of south-west Tasmania. Beneath the forest canopy are frequent outcrops of karstic rocks and associated caves. The boundary of the TWWHA leaves much of this tract of ancient forest unprotected. New roads, current and proposed logging and the subsequent burning operations threaten these ancient stands of forest and their documented World Heritage values.

The tall-eucalypt forest of Beech Creek, the Counsel River and the upper Derwent River contains Tasmania’s greatest single remaining...
6. Wild bays, beaches, headlands, lagoons, sand dunes and islets

Tasmania’s south and south-west coasts are exposed to the winds and swells of the Roaring Forties. Waves of great power break on the beaches, reefs, cliffs and islands of this undeveloped coast. More sheltered are the coves and lagoons, as well as great natural inlets such as Port Davey, Bathurst Harbour and Macquarie Harbour.

The coastal vegetation includes natural dune-grasses, verdant littoral rainforests, and the seemingly manicured ‘marsupial lawns’. In places, rainforest meets the coast. ‘Mystical green rainforests border pristine white sands’, says the review of the flora of the TWWHA. The pristine condition of most of this coast, its energetic natural processes, and its unique vegetation and habitats satisfy criteria vii, viii and x of the World Heritage criteria. However, there are several places where the boundary

Giant trees within conservation reserves just outside the TWWHA have not been well served by the management of Forestry Tasmania. The most notorious case is that of the Florentine valley’s El Grande. Australia’s most massive known living organism, a tree over 400 cubic metres in volume, El Grande was incinerated and killed by a Forestry Tasmania burn-off in 2003. Most of Tasmania’s other giants are menaced by similar boundaries and management. In 2007, Forestry Tasmania was fined $25,000 for the illegal logging of seven hectares of the formally protected Arve Forest Reserve located in very close proximity to the TWWHA.

Statistics demonstrate the historic impact of the assault on Tasmanian tall-eucalypt forests. Over one third of Tasmania’s original tall-eucalypt forests has been cleared, 44% is threatened by logging. Only 22% of Tasmania’s original extent of tall-eucalypt forest has been protected. Even less — about 15% — occurs within formal reserves such as national parks.

Clearly, great stands of outstanding tall-eucalypt forest remain threatened — indeed, under systematic assault — immediately adjacent to the TWWHA. Superlative individual giants within small conservation reserves outside the TWWHA in valleys such as the Styx and Florentine are threatened by adjacent logging and burning. Extension of the TWWHA to protect remaining stands of unlogged tall-eucalypt forest would massively enhance the integrity of this outstanding asset and of the World Heritage Area itself.

The coastal vegetation includes natural dune-grasses, verdant littoral rainforests, and the seemingly manicured ‘marsupial lawns’. In places, rainforest meets the coast. ‘Mystical green rainforests border pristine white sands’, says the review of the flora of the TWWHA. The pristine condition of most of this coast, its energetic natural processes, and its unique vegetation and habitats satisfy criteria vii, viii and x of the World Heritage criteria. However, there are several places where the boundary
The rugged headlands, cliffs, islets and beaches of Tasmania’s west and south coasts are continually battered by the great breakers of the Roaring Forties. Photo: Grant Dixon.

North of Macquarie Heads are Ocean Beach, the Heemskirk coast with its spectacular dissected ridges, and the Tarkine coast, with its own assemblage of lagoons, river mouths, sand dunes, beaches, rocky reefs and headlands. This entire coastline is continually pounded by the waves of the Roaring Forties. When a high swell is running, the noise, spray and sight of serried ranks of great breakers can overwhelm the observer with their power.

Parts of this coastline are under threat from unregulated recreation and development. A mining company has proposed to establish a port and infrastructure at Birthday Bay, south of Cape Sorell. A veritable off-road-vehicle highway has developed between Macquarie Heads and Marrawah, north of the Tarkine, eroding vegetation, dunes and middens. Ancient Aboriginal petroglyphs have been vandalised. Rising sea-levels caused by climate change threaten the unique vegetation and landforms of this coast.

The spectacular coastal landforms and unique vegetation of Tasmania’s south and south-west coasts are not wholly contained within the TWWHA. Parts of this coast are under threat. Cox Bight is the only gap in an otherwise continuous 755 km of World Heritage listed coast. And there is clearly a strong case for extending the TWWHA to incorporate the wild coast north almost to Cape Sorell, as well as the wild coast of the Tarkine. Potential World Heritage values of the Heemskirk Regional Reserve and its coast should be investigated.

7. Wild and pristine rivers, lakes and wetlands

It was the battle to protect the Franklin River from being dammed for hydro-electricity that led to the first listing of the Tasmanian Wilderness as World Heritage. Wild river-systems are therefore an intrinsic part of the outstanding universal values of the TWWHA, satisfying criteria vii and viii. Western Tasmania also contains literally thousands of natural lakes and tarns, many of them in pristine catchments. Other wetlands include lagoons, harbours, bogs and swamp forests. They provide habitat for birds, mammals, amphibians, fish and invertebrates in settings of stunning beauty, satisfying World Heritage criteria vii and viii.

Most of the rivers of the TWWHA have a high degree of integrity. Catchments of rivers such as the New, Old and Davey are contained entirely within the World Heritage Area, from their sources high in rugged mountains, to their discharge into the ocean. Where catchments are only partly protected within the World Heritage Area, it is mostly the downstream components that occur outside, meaning that artificial disturbances are propagated away from the TWWHA. This leaves most World Heritage catchments with a high degree of integrity.

But there are exceptions.

Surprisingly, the headwaters of a major tributary of the Franklin River itself, the Andrew, lie outside the TWWHA in an area currently proposed for hydro-electric development. Some small tributaries of the lower Gordon River are in the same category. The upper parts of the Nora,
Clark and Braddon Rivers — whose lower reaches are within the TWWHA — occur in an adjacent Regional Reserve that is not part of the TWWHA. Nelson Falls, a popular tourist attraction on the Lyell Highway, are within the Wild Rivers National Park but not the TWWHA. Minor alterations to the boundaries of the TWWHA would rectify these situations.

An important group of rivers occurs south of Macquarie Harbour. Starting as small streams in the TWWHA, the waters of the Spero, Wanderer and Mainwaring rivers become stained by buttongrass before flowing through rainforest and then emptying into the ocean. Huon pines line their lower reaches. A combination of tectonic forces, thick deposits of quartz gravels, and erosion-resistant bogs has allowed the Spero River to create a scenic flight of fluvial terraces. The integrity of these outstanding river-systems is not protected by the current TWWHA boundary.14

The 450,000-ha tract of wild country encompassed by the Tarkine also contains pristine rivers flowing wild from the mountains to the sea.32 The most exemplary is the Donaldson, flowing through a steeply incised gorge amidst a wilderness of moorlands, rainforests and eucalypts. Even catchments that have suffered heavily from dams, mining and logging, such as those of the Arthur and Pieman, contain numerous pristine tributaries, including some with rare magnesite karst. Flowing westwards from the 760-metre-high Norfolk Range to the coast are pristine rivers such as the Pedder, Wild Wave, Thornton and Interview. Many of the above systems occur side by side, their catchments straddling watersheds to create a sprawling collage of diverse, natural habitats.

Estuaries of critical importance outside the TWWHA include Southport Lagoon, the Wanderer estuary and Hibbs Lagoon — a place of unparalleled biodiversity.8, 13

Many river-systems of the TWWHA would clearly be enhanced by the extension of the TWWHA to incorporate the catchments, lagoons and estuaries identified above.

8. A stronghold of rare, threatened and often unique fauna that occupy a diverse range of ecological niches

Western Tasmania’s long periods of isolation and moist climate have protected its ancient Gondwanan fauna as well as species that have become rare on the Australian mainland, such as carnivorous marsupials. The great range of settings in Western Tasmania — highland streams, alpine grassland, rainforests, tall eucalypts, moorlands, lagoons, sand dunes and rocky islets — have created niches for a huge diversity of mammals, birds, amphibia and invertebrates, satisfying criterion x.5, 34, 35

Western Tasmania’s links to the ancient super-continents of Gondwana and Pangea are found not only in its flora,
but also in primitive invertebrate creatures. The Tasmanian mountain shrimp, Anaspides, which lives in cold mountain waters, is similar to fossils over 250 million years old. Ancient centipedes (Craterostigmus), the last survivors of a globally diverse group, patrol the forest floors at night. Aquatic insects such as dragonflies, stoneflies, mayflies and caddisflies share close affinities to groups found in South America, New Zealand and Southern Africa.

One of Tasmania’s most impressive creatures is the giant freshwater crayfish, (Astacopsis gouldi). Listed as vulnerable due to slow breeding, poaching, loss of habitat, and the degradation of streams due to logging, it is the largest freshwater invertebrate in the world, growing (if not caught and cooked) to over 80 cm in length. Its habitat consists of streams that run north into Bass Strait and some tributaries of the Tarkine’s Arthur River.

Vertebrate fauna with Gondwanan links include the monotremes (platypus and echidna), parrots, the freshwater galaxias fish, and two families of frogs.

Marsupial fauna which became rare or extinct on the mainland hundreds of years before the arrival of Europeans include the thylacine (Tasmanian tiger) and the Tasmanian devil. The first is now officially extinct — wiped out by state-sanctioned persecution, leaving the latter as Australia’s top-order marsupial carnivore.

The Tasmanian devil, (Sarcophilus harrisii) is Tasmania’s most recognised and famous native animal. Unfortunately, it is also listed as endangered. Its total population is believed to have halved in the 15 years from 1994 due to the Devil Facial Tumour Disease (DFTD), a virulent infectious cancer whose grotesque facial lesions cause great suffering, killing affected animals within five months. In parts of eastern Tasmania, the devil is believed to have suffered a decline of up to 90%. The recent malicious introduction of foxes — which compete with devils for food and dens — into Tasmania has exacerbated this alarming situation.

The devil’s habitats in the western third of Tasmania — such as the heathlands of the Tarkine — have therefore become particularly important for the very survival of the species. These areas are less disturbed by land-clearing, logging and the use of chemicals. Evidence of foxes has yet to be discovered. And they are buffered from disease-ridden animals to the east by significant tracts of dense wet forest which is less-preferred habitat for the devil.

The proposed Tarkine Road is a threat to these values.

Tasmania is also important for quolls, of which there are only five species in Australia. Tasmania provides critical habitat for the eastern quoll (Dasyurus viverrinus — extinct on the mainland but plentiful in Tasmania), and the spotted-tail quoll (Dasyurus maculatus — listed as vulnerable). The latter is a nocturnal forest-dwelling, tree-climbing predator that favours the wetter forests of Tasmania’s west.

Western Tasmania also provides habitat for smaller carnivores and omnivores, such as dunnarts, native rats, antechinus and bandicoots; for herbivores such as wombats, potoroos, and wallabies; and for arboreal marsupials such as sugar gliders and ring-tail, brushtail and pygmy possums.
Together these mammals occupy the full range of habitats in Western Tasmania, from sea level to mountain tops, from sodden rainforests to dry open woodlands, from buttongrass to tall-eucalypt forest, and from sand dunes to rocky outcrops. Representation of each of these environments in the TWWHA is necessary to provide a secure future to the full range of marsupials, from widespread herbivores to the increasingly vulnerable predators.42

The TWWHA also provides important habitat for 120 terrestrial species and 15 marine species of birds.34 Some are listed as rare or threatened.

The Australian wedge-tailed eagle (Aquila audax) is one of the continent’s top-order predators and one of the biggest species of eagle in the world. The Tasmanian sub-species is larger than its mainland counterpart (with a wing span of up to three metres) and is listed as endangered due to the impacts of land-clearing, logging and persecution. New logging roads and the destruction of oldgrowth forests are reducing nesting sites and therefore breeding habitat for these birds.36, 37 Conversely, the protection of forests adjacent to the TWWHA would help secure the long-term future of this magnificent raptor.

In a similar plight is the white goshawk (Accipiter novaehollandiae) — a raptor of striking appearance. Listed as endangered, it hunts in wet forests of low stem density such as those near the Tasmania’s west coast and on the Great Western Tiers.37

The beautifully patterned but secretive ground parrot (Pezoporus wallicus) is one of only three ground-dwelling parrots in the world. Now extremely rare on the mainland, its main habitat consists of the buttongrass and open heathlands of western and southern Tasmania.43 Western Tasmania also provides significant habitat for the endangered swift parrot and various species of owls, ducks, cockatoos, native hens, hawks and penguins, as well as sea eagles.34

Together, these creatures constitute an extraordinary living heritage of a temperate island — including great raptors, the largest remaining marsupial predators, giant crustaceans and living fossils. Yet their long-term viability is threatened by a range of relentless processes: climate change, new diseases, destruction of habitat, and persecution. Replication and perpetual security of their habitats in a greatly extended Tasmanian Wilderness World Heritage Area would enhance their long-term chances of survival as well as the integrity of the TWWHA as a crucial habitat for rare and threatened species.

The endangered Tasmanian wedge-tailed eagle is Australia’s biggest bird of prey and is threatened by logging, land clearing, persecution and accidental deaths. Photo: Dave Watts.
9. A unique record of human habitation at extreme southerly latitudes lasting over 35,000 years

The wilderness condition of most of the World Heritage Area has preserved Aboriginal heritage in isolated caves, in middens, hut sites and rock-carvings on the coast, and in stone-tool scatters. Together, these present the sequence of human occupation of Tasmania from times of great antiquity right up to the devastating arrival of Europeans 200 years ago and thereafter. They show how a resilient people practised hunting and gathering over long periods, often during extreme conditions. This physical evidence of an ancient people’s way of life satisfy World Heritage criteria iii and v.

Tasmania has been inhabited by Aboriginal people for over 35,000 years. They came from mainland Australia during an ice age when large parts of Bass Strait were an exposed, open plain. They are believed to have been the most southerly people on the planet at a time when snow covered Tasmania’s mountain-tops all year round and glaciers descended to present-day sea level on the south coast.

The Tasmanian Wilderness bears a unique and exceptional testimony to this ancient, ice-age society. Caves in the valleys of the wild Franklin and Maxwell rivers contain deposits of artefacts, charcoal and animal bones from camp fires that burnt between 35,000 and 10,000 years ago. The walls of some of these caves are decorated with hand stencils that are amongst the earliest known artworks in the entire world. The outstanding universal values of these sites were recognised by the 1982 listing of the Tasmanian Wilderness.

In 1989, this suite of pleistocene sites was significantly augmented by the additions of Wargata Mina cave in the Cracroft valley and Bone Cave in the Weld. Yet caves containing cultural heritage of similar significance and antiquity occur in forests just outside the TWWHA in parts of the Florentine and Huon valleys that are an integral part of the Tasmanian Wilderness.

Addition of these sites to the TWWHA would greatly augment and complement those already listed.

When Aboriginal people lived in these caves, the cold climate meant that the surrounding plains were covered with grassland. There were therefore more wallabies and wombats to hunt than in the dense forests that occur in Tasmania’s western valleys today. Most of these sites were abandoned as the climate warmed and forest displaced grassland. Their cultural treasures have been little disturbed over millennia. Maintenance of the remoteness of these caves is the key to their preservation. However, the integrity of this cultural heritage is under serious immediate threat from encroaching logging.

In 1989, this suite of pleistocene sites was significantly augmented by the additions of Wargata Mina cave in the Cracroft valley and Bone Cave in the Weld. Yet caves containing cultural heritage of similar significance and antiquity occur in forests just outside the TWWHA in parts of the Florentine and Huon valleys that are an integral part of the Tasmanian Wilderness.

The ice-age Aboriginal occupants of Western Tasmania hunted wallabies on grassy plains that are now covered in thick forest.

These hand stencils in Ballawinne cave within the TWWHA are amongst some of the oldest artworks known to humanity. A similar site occurs just outside the TWWHA. Photo: Grant Dixon.
One place that retains the characteristics of the grassy valleys where Aboriginal people hunted during the ice ages of 20,000 years ago is the Vale of Belvoir. In this scenic highland valley north of Cradle Mountain, native grasses and wildflowers carpet the ground, providing habitat for scores of herbivorous marsupials and the carnivores that feed on them. With surrounding mountains frequently wearing a mantle of snow, the Vale serves as a vivid reminder of the grassy valleys occupied by people during the ice ages.\(^{15, 24}\)

When sea levels rose after the last ice age — from around 12,000 years ago — the Tasmanian Aboriginal people began the longest period of isolation from other communities ever known.\(^{15}\)

Within the TWWHA there are shelters in the Mersey valley and Lemonthyme containing evidence of Aboriginals occupation during these 12,000 years.\(^{15}\) Similar rock shelters and deposits are found outside the TWWHA beneath the sandstone cliffs on the Great Western Tiers.\(^{8}\) The integrity of some of these sites is threatened by encroaching logging.

On the coast within the TWWHA are extensive middens and artefact sites which exemplify a hunter-gatherer way of life in a harsh coastal environment.\(^{3, 15}\) Complementing such sites are those of the Tarkine. Coastal sites dating from 4000 years ago contain rock carvings, huge middens, hut-depressions, artefact scatters, quarries and stone arrangements. Some outcrops on the beaches have been engraved with beautiful figures. Less than 10 kilometres inland, at Rebecca Creek, is a suite of unique spongolite quarries from which the raw materials for making stone tools were obtained.\(^{37}\)

These sites tell a story of a people that flourished here for millenia, living in huts, manufacturing tools, eating shellfish and seals, trading with their neighbours and creating artworks. The richness of these sites led the Australian Heritage Commission to describe this part of the Tarkine coast as ‘... one of the world’s great archaeological regions’ in 1990.\(^{47}\) Yet this coastline is being severely degraded by off-road vehicles. In January 2006, ancient petroglyphs on the Tarkine coast were severely defaced with a stone chisel. In the past, swastikas have been spray-painted across some of the figures.\(^{49, 50}\)

No perpetrators were brought to justice.

In the 18th century AD, the Tasmanian Aborigines’ long period of isolation came to an end. Visits by European mariners became more frequent, with occasional encounters between the two cultures.

Such encounters occurred at Recherche Bay in 1792 and 1793. Here, local Aboriginal people and the French expeditioners under D’Entrecasteaux enjoyed friendly interactions. The French collected scientific specimens and data, named places and established a garden. The Aboriginal people gave the Europeans a privileged view of their way of life. Detailed ethnographic observations were made. Most of the coast around Recherche Bay and Southport Lagoon is little changed from the days of those early contacts. The area is regarded by heritage experts as having outstanding universal value as a site of colonial exploration and Aboriginal cultural significance, yet it remains just outside the TWWHA.\(^{20, 54}\)
Together, the caves, rock shelters, quarries, middens, artefact scatters and rock art of Western Tasmania provide unique and outstanding testimony to a people that lived during extreme climatic conditions and then, when the climate warmed, endured one of the longest periods of isolation from other communities known in human history. Yet sites that tell crucial parts of this 35,000-year-long story are missing from the TWWHA. Some face severe threats from vandals, government neglect, encroaching logging and unrestrained off-road vehicles. Damage to these parts of Tasmania's outstanding Aboriginal heritage degrades the integrity of the whole. On the other hand, properly resourced protection as World Heritage of the full geographic and temporal range of these sites will bolster the outstanding universal values and integrity of the TWWHA.

This scenic coast at Recherche Bay, less than five kilometres from the World Heritage Area, was the site of historic meetings between French mariners and Tasmanian Aboriginal people in 1792 and 1793. Photo: Bob Brown

Aboriginal midden, Tarkine coast. This heritage is being gradually destroyed by off-road vehicles and government indifference. Photo: Grant Dixon.
Completing and securing the integrity of the Tasmanian Wilderness World Heritage Area

Drawing on published work of experts over the last 20 years, it is proposed that the Tasmanian Wilderness World Heritage Area be extended to include the following areas of outstanding universal value:

- **Black Bluff and the Vale River catchment** — a scenic highland valley with glaciated peaks, rare natural grasslands, a dramatic waterfall and sensitive karst systems. This proposed extension occurs largely in conservation reserves but does include State Forest on the slopes of Black Bluff. The Tasmanian Land Conservancy has given permission for its land on the Vale of Belvoir to be included in this proposal.50

- **Mole Creek Karst** — an intricate cave-system containing huge caverns and features of great fragility and beauty. This extension consists of conservation reserve, including part of the Mole Creek National Park, and State Forest adjacent to the TWWHA. No private land has been proposed for the extension.

- **The Great Western Tiers and upper Mersey** — the imposing northern edge of the World Heritage Area, containing cliffs of dolerite and sandstone, rainforest gullies, waterfalls and Aboriginal heritage. This consists of conservation reserve and State Forest.

- **Tall-forest valleys (Navarre, upper Derwent, Counsel, Beech, Florentine, Tyenna, Styx, Mt Wedge, Weld, Huon, Picton).** The world’s most impressive tracts of tall hardwood forest — including giant trees over 90 metres tall and up to six metres in diameter — occur in the valleys of the Weld, Florentine, Styx, Picton, Huon, Counsel and upper Derwent. These proposed extensions comprise conservation reserve and/or State Forest and include Aboriginal heritage, glacial features, rainforest, waterfalls, cave-systems and habitat of rare and threatened species. Protected in an expanded World Heritage Area, the giant trees of Tasmania would stand as a southern counterpart of the World-Heritage-listed Redwoods National Park in the USA.

Reynolds Falls occur on the Vale River, which flows from Black Bluff at the northern extremity of Tasmania’s glaciated landscapes, through the grasslands of the Vale of Belvoir and through a rugged, forested gorge. Photo: Grant Dixon.
• **Mt Field National Park** — a microcosm of World Heritage values. Only three kilometres from the TWWHA, this national park (proclaimed in 1916) contains a dramatically glaciated landscape; assemblages of rare alpine plants; deciduous beech and ancient pines; some of Australia’s deepest caves (over 370 metres deep); the renowned Russell Falls; tall-eucalypt forest; a tourist road and a network of walking tracks. The extension includes the 15,881-ha national park plus some adjacent State Forest. It provides an outstanding opportunity to present to the public a wide range of World Heritage Value.

• **Recherche Bay** — beaches, coves, lagoons and forests where Europeans and Tasmanian Aboriginal people first interacted and where threatened coastal species occur. This extension consists largely of conservation reserve. The Tasmanian Land Conservancy has given permission for its property at Recherche Bay to be included in this proposal.

• **Melaleuca and Cox Bight** — moorlands, beaches, headlands and a lagoon that are an intrinsic part of the Tasmanian wilderness. This 4000-ha conservation area should be incorporated into the WHA in a manner that encourages those people for whom Melaleuca has been home to maintain their links with this isolated outpost. Specifically, members of the King and Willson families who have lived at Melaleuca should be able to continue to use their dwellings and associated infrastructure.

• **Wanderer Wilderness** (Southwest Conservation Area south of Macquarie Harbour) — a wild coastline, pristine rivers, extensive moorlands, disease-free Tasmanian devils and temperate rainforests. This large extension does not include the shacks, private land, lighthouse and damaged country in the very northern part of this Conservation Area.

• **Western Mountains.** These are the spectacular ice-sculpted mountains, glacial lakes, ancient conifers and deciduous beech of the West Coast ranges. These extensions consist almost entirely of conservation reserves. They include the ancient Huon pine assemblage at Lake Johnston, the most diverse rainforest in southern Australia, and Tasmania’s greatest stand of deciduous beech and king billy pine.

• **The Tarkine** — Australia’s greatest temperate rainforest, threatened stands of tall eucalypts, large tracts of moorland, wild rivers, rare magnesite karst, populations of disease-free devils and a dramatic coastline rich in Aboriginal heritage, including petroglyphs and hut-sites. This very large extension contains over 190,000 ha of rainforest and consists largely of conservation reserves and State Forest.
Accompanying these proposed extensions are additional areas not proposed as World Heritage extensions but which should be managed as buffer zones under the Management Plan for the TWWHA. These include areas of conservation reserve on the West Coast; and some areas of State Forest in the Tarkine, Picton, Styx, Weld and Southport Lagoon areas to be managed for long-term rehabilitation. No clearfelling, burning or plantation establishment would be permitted in these areas, though small-scale extraction of high-quality timbers using selective methods would be permitted.

The proposed extensions and other zones are shown on Map 4.

The proposed extensions include two enclaves of public land — the Henty and Savage River Mines. They are not proposed for inclusion. Nor are the Savage River pipeline and track. The surrounding country, however, is of immense importance to conservation.

Maps attached to this report are at a scale that does not allow detailed identification of small enclaves of private land that may occur within or next to the boundaries of some proposed extensions. Such private land is not proposed for addition to the TWWHA unless its owners have agreed. No shacks are proposed for inclusion within the TWWHA. The Tasmanian Land Conservancy has agreed to two of its properties being proposed as extensions to the World Heritage Area.
Economic value

The TWWHA earns hundreds of millions of dollars and generates thousands of jobs for the people of Tasmania. According to a report released in 2009 by the Australian Government, the TWWHA:

- creates $700,445,000 annually in direct and indirect turnover;
- generates $200,761,000 of annual income for the state;
- provides 5131 jobs. 7

The TWWHA is therefore one of the economic bulwarks of Tasmania.

Adopting the above proposed extensions and buffer zones would complete the TWWHA and satisfy conditions of integrity in the following ways:

- The wilderness of Western Tasmania would be protected and managed as a single entity to maintain its outstanding natural and cultural values;
- All features or landscapes with recognised World Heritage values would be incorporated into the TWWHA;
- Habitats of threatened species and environments of recognised World Heritage quality that are highly vulnerable to climate change and/or fire would be replicated within the TWWHA, thereby maximising the chances of survival of their attributes;
- Adjacent areas without outstanding universal value but which are important buffer zones would be managed under the TWWHA Management Plan.

The proposed extensions straddle the following transport routes that are not already within the TWWHA:

- Poatina Road (B51) where it crosses the Great Western Tiers — a spectacular area of dolerite crags, scree and sub-alpine woodland;
- Murchison Highway (A10) where it passes through rainforest and moorland north of Tullah, creating another scenic entry point for the TWWHA;
- Emu Bay Railway near the Murchison Highway (the easement of the railway itself is not proposed for inclusion within the TWWHA);
- Anthony Highway (B24) for most of its length;
- Savage River Road (B23);
- Lake Dobson Road into Mt Field National Park.

This creates several new gateways to the World Heritage Area, opening new opportunities for sustainable tourism.
Areas

The proposed extensions to the Tasmanian Wilderness World Heritage Area comprise 806,000 ha. 629,000 ha of this — or some 78% — consists of formal conservation reserves. An additional 53,000 ha are ‘informal reserves’ on State Forest and other public land. That is, approximately 85% of the proposed extensions are already reserved.

If the extensions were adopted, 32% of Tasmania’s land area would be listed as World Heritage, with an additional 0.9% managed under the same Management Plan as the TWWHA.

Conclusion

The wilderness of Western Tasmania has been the subject of debates that have been at the heart of humanity’s evolving relationship with nature since the mid 20th century. The battles over Lake Pedder and the Franklin River helped Australia recognise the value of wilderness. They generated new federal legislation to protect World Heritage properties, altered the relationship between Australia’s national and state governments, and saw our national government take on international responsibilities for the protection of the natural environment. The continuing debate over Tasmania’s wilderness has helped create Tasmania’s new vision of itself — as being clean, green and clever — a vision yet to be practically enacted. The latest phase of the debate over the future of Tasmania’s forests has focussed on their importance in combating climate change, by locking huge quantities of carbon out of the atmosphere.

Beyond these evolving human debates is the Tasmanian wilderness itself. Ancient, fragile and awe-inspiring, it demands protection in its entirety — as one of the great World Heritage Areas of the planet.
<table>
<thead>
<tr>
<th>Land category</th>
<th>Area (hectares)</th>
<th>Percentage of Tasmania’s land area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Tasmanian Wilderness World Heritage Area (1989 boundaries)</td>
<td>1,383,865</td>
<td>20.3%</td>
</tr>
<tr>
<td>B. Proposed extensions – reserves already managed under WH Plan;</td>
<td>20,114</td>
<td>0.3%</td>
</tr>
<tr>
<td>C. Proposed extensions – other formal conservation reserves</td>
<td>609,000</td>
<td>8.9%</td>
</tr>
<tr>
<td>D. Proposed extensions – informal conservation reserves</td>
<td>53,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>E. Proposed extensions - State Forest and other public land</td>
<td>124,000</td>
<td>1.8%</td>
</tr>
<tr>
<td>F. Total proposed extensions ( = B + C + D + E )</td>
<td>806,000</td>
<td>11.8%</td>
</tr>
<tr>
<td>G. Total proposed new TWWHA ( = A + F )</td>
<td>2,190,000</td>
<td>32.2%</td>
</tr>
<tr>
<td>Additional areas of existing reserve to be managed under Management Plan for TWWHA as buffer zones</td>
<td>22,000</td>
<td>0.3%</td>
</tr>
<tr>
<td>Additional areas of State Forest managed for rehabilitation as buffer zones (inc 57,000 hectares of informal reserve)</td>
<td>33,000</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total area managed for enhancement of TWWHA</strong></td>
<td><strong>2,245,000</strong></td>
<td><strong>32.9%</strong></td>
</tr>
</tbody>
</table>

Totals and sub-totals are rounded to nearest 1000; rounding of percentages has affected totals; informal reserves in D are mostly State Forest.
References


28. ABC, 30/11/2007: Forestry Tasmania fined over illegal harvesting


45. Unpublished interdepartmental report on karst and Aboriginal heritage in undisclosed location. Approx. 2006. Forestry Tasmania, Department
of Primary Industries, Water and Environment, Tasmanian Aboriginal Land and Sea Council, Forest Practices Authority.


50. Males, N. (30 June 2009). Email to Geoff Law; permission granted.


54. Mulvaney, J. (2007): ‘The axe had never sounded’ place, people and heritage of Recherche Bay, Tasmania. ANU Express and Aboriginal History Inc.

Appendix 1.


The Committee considers a property as having outstanding universal value (see paragraphs 49–53) if the property meets one or more of the following criteria. Nominated properties shall therefore:

(i) represent a masterpiece of human creative genius;

(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

(v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

(vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

(vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

(viii) be outstanding examples representing major stages of Earth’s history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

(ix) be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

(x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

Integrity

87. All properties nominated for inscription on the World Heritage List will satisfy the conditions of integrity.

88. Integrity is a measure of the wholeness and in-tactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity therefore requires assessing the extent to which the property:

(a) includes all elements necessary to express its outstanding universal value;

(b) is of adequate size to ensure the complete repre-sentation of the features and processes which convey the property’s significance;

(c) suffers from adverse effects of development and/or neglect. This should be presented in a statement of integrity.

89. For properties nominated under criteria i to vi, the physical fabric of the property and/or its significant features should be in good condition, and the impact of deterioration processes controlled. A significant proportion of the elements necessary to convey the totality of the value conveyed by the property should be included. Relationships and dynamic functions present in cultural landscapes, historic towns or other living properties essential to their distinctive character should also be maintained.

90. For all properties nominated under criteria vii - x, biophysical processes and landscape features should be relatively intact. However, it is recognised that no area is totally pristine and that all natural areas are in a dynamic state, and to some extent involve contact with people. Human activities, including those of traditional societies and local communities, often occur in natural areas. These activities may be consistent with the outstanding universal value of the area where they are ecologically consistent.

91. In addition, for properties nominated under criteria vii to x, a corresponding condition of integrity has been defined for each criterion.

92. Properties proposed under criterion vii should be of outstanding universal value and include areas that are essential to maintaining the beauty of the property. For example, a property whose scenic value depends on a waterfall would meet the conditions of integrity if it includes adjacent catchment and downstream areas that are integrally linked to the maintenance of the aesthetic qualities of the property.

93. Properties that are nominated under criterion viii should contain all or most of the key interrelated and interdependent elements in their natural relationships. For example, an ‘ice age’ area would meet the conditions of integrity if it includes the snowfield, the glacier itself and samples of cutting patterns, deposition and colonisation (eg striations, moraines, pioneer stages of plant succession etc); in the case of volcanoes, the magmatic series should be complete and all or most of the varieties of effusive rocks and types of eruptions be represented.

94. Properties proposed under criterion ix should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biological diversity they contain. For example, an area of tropical rainforest would meet the conditions of integrity if it includes a certain amount of variation in elevation above sea level, changes in topography and soil types, patch systems and naturally regenerating patches; similarly, a tropical reef should include, for example, sea grass, mangrove or other adjacent ecosystems that regulate nutrient and sediment inputs to the reef.

95. Properties proposed under criterion x should be the most important properties for the conservation of biological diversity. Only those properties which are the most biologically diverse and/or representative are likely to meet this criterion. The properties should contain habitats for maintaining the most diverse flora and fauna characteristics of the bio-geographic province and ecosystem under consideration. For example, a tropical savannah would meet the conditions of integrity if it includes a complete assem-blage of co-evolved herbivores and plants; an island ecosystem should include habitats for maintaining endemic biota; a property containing wide-ranging species should be large enough to include the most critical habitats essential to ensure the survival of viable populations of those species; for an area containing migratory species, seasonal breeding and nesting sites and migratory routes, wherever they are located, should be adequately protected.