

WORLD HERITAGE NOMINATION - IUCN SUMMARY

507: TASMANIAN WILDERNESS (AUSTRALIA)

(Revision to existing Property inscribed in 1982)



Summary prepared by IUCN (April 1989) based on the original nomination submitted by the Government of Australia. This original and all documents presented in support of this nomination will be available for consultation at the meeting of the Bureau and the Committee.

Note: In the light of the Bureau's concurrence with proposals to further extend the nominated site, the State Party's nomination of 1,374,000 ha in total, further revised in September 1989, is discussed in the IUCN Technical Evaluation.

1. LOCATION

Comprises a contiguous network of reserved lands that extends over much of south-western Tasmania, including five national parks (Cradle Mountain-Lake St Clair, Franklin-Lower Gordon Wild Rivers, Southwest, Walls of Jerusalem and Hartz Mountains), four state reserves (Devils Gullet, Marakoopa Cave, Exit Cave and Port Davey) and part of Liffey Falls State Reserve, four conservation areas (Central Plateau, Oakleigh Creek, Southwest and St. Clair Lagoon), and a number of protected areas, forest reserves as well as land vested in the Hydro-Electric Commission. Several outliers are included in the nominated area: Sarah Island Historic Site in Macquarie Harbour; and Ile du Golfe, De Witt Island, Flat Witch Island and Maatsukyer Island off the south coast of Tasmania. Lake Gordon and some land adjoining it in the centre of this network has been developed for hydro-electric purposes and is excluded. 41°35'-43°40'S, 145°25'-146°55'E.

2. JURIDICAL DATA

Apart from approximately 330ha of privately-owned land in the Vale of Rasselas, on the Central Plateau and at Pillinger, land is publicly owned and includes 773,215ha under national parks, 2074h under state reserves, c. 452,761ha under conservation areas, 92,000ha of Protected Area, c. 11,250ha under state forests, 3143ha of forest reserves, c. 5,270ha of unallocated Crown land and c. 33,420ha of land vested in the Hydro-Electric Commission, of which 17,525ha is leased to the Department of Lands, Parks and Wildlife). There is also 182ha of Commonwealth land. Total area is c. 1,374,000ha.

Southwest National Park is a biosphere reserve. Cradle Mountain-Lake St Clair, Franklin-Lower Gordon Wild Rivers and Southwest national parks were inscribed on the World Heritage List as Western Tasmanian National Parks in 1982.

3. IDENTIFICATION

The property is mostly undisturbed wilderness, encompassing most of the last temperate rain forest remaining in Australia, as well as extensive tracts of tall eucalypt forest. A high proportion of Tasmania's karst areas, glacial landscapes and known archaeological sites also occurs within the nominated area.

In contrast to the mainland, the island of Tasmania is a rugged region with fold structures in the western half and fault structures in the east, both of which are found in the property. Rocks of the fold structure vary in age from Precambrian to Devonian. Quartzite forms most of the prominent ranges in the area, while less resistant schist, dolomite and phyllite underlie many of the valleys and plains. Changing climates have also influenced landscape development, highlighted most recently by late Cainozoic and Pleistocene glacial and periglacial events. The coastline has been subjected to a number of sea level changes during the glaciations and presently provides a classic example of a drowned landscape. The Franklin and Gordon have cut directly through the mountain ranges to produce spectacular gorges. Karst formations include impressiver cave systems. Other features include Lake St Clair (the deepest lake in Australia) and a myriad of lakes on the plateau south of the Walls of Jerusalem. Exit Cave is the longest measured cave system in Australia (19km) and Anne-a-kananda is the deepest cave (373m).

The vegetation has as much in common with cool, temperate regions of South America and New Zealand. Alpine, temperate rain forest, wet sclerophyll, dry eucalypt, buttongrass moorland, and grassland and grassy woodland communities are well represented. In addition, there are coastal, wet and dry scrub communities and examples of Tasmania's Sphagnum bogs. Temperate rain forest, covering less than 30% of the area below the treeline, is distinctive in its total absence of typical rain forest morphological adaptations, such as drip tip leaves, stem-flowering and buttressing, and in the small leaves of dominant species. There is a wide range of aquatic ecosystems, including meromictic lakes and coastal lagoons with their unusual micro-organisms. The temperate rain forest, eucalypt forest, buttongrass moorland and the alpine communities occur in a unique mosaic of Antarctic and Australian elements of the flora. The Antarctic element consists of species descended from the super-continent of Gondwana and includes populations of relictual Gondwanan conifer genera restricted to Tasmania. Plants of the Australian element, of which Eucalyptus is a prime example, have evolved more recently and dominate the sclerophyll communities. Two-thirds (240) of Tasmania's endemic higher plant taxa are present in the area, many of which are threatened.

The fauna includes an unusually high proportion of endemic species and relict groups of ancient lineage. Two main groups can be recognised: one, including the marsupials and burrowing freshwater crayfish, that has survived as relicts of the Gondwana fauna; and another, including rodents and bats, that has invaded Australia from Asia millions of years after the break up of Gondwanaland. Of Tasmania's 32 mammal species, 27 are present. Over 150 bird species are present, including orange-bellied parrot Neophema chrysogaster (R), one of Australia's rarest and most threatened birds. There are 11 reptile species, six frog species, 15 species of freshwater fish and an important invertebrate fauna.

Archaeological finds indicate a significant Ice Age (Pleistocene) hunter-gatherer society inland, which existed from at least 30,000 years ago until the end of the Ice Age some 11,500 years ago, and coastal occupation by Aborigines from at least 3,000 years ago to the time of European arrival in the 19th century.

Large numbers of people visit the area for active forms of recreation, including bushwalking, caving, mountaineering, climbing, rafting, and cross-country skiing. Long-established trails, such as the Overland Track and South Coast Track, provide high quality wilderness experiences for walkers.

4. STATE OF PRESERVATION/CONSERVATION

Most of the property is in a natural or near natural condition. The major human modification of the region has been the construction of the Middle Gordon hydro-electric power scheme in the early 1970s. This involved the damming of a section of the Gordon River (excluded from the property) and the inundation of Lake Pedder with its remarkable quartzite beach to form two large impoundments. As part of this scheme, a road was built into the heart of the southwest wilderness and a small town, Strathgordon, constructed just outside Southwest National Park. Hydro-electric development has also taken place at Scotts Peak, Mount Arrowsmith, Lakes Augusta and Mackenzie, and Lake St Clair, the level of which was artificially raised in 1946; investigation camps and tracks remain on the Lower Gordon River and Mount McCall. The Lake Mackintosh impoundment forms a minor intrusion into Cradle Mountain-Lake St Clair National Park. There is some visual impact associated with these developments on the viewfields from some popular peaks.

Fire continues to be the greatest threat to much of the more remote country. Some forest in peripheral areas (Lemonthyme, south of Farmhouse Creek and other localities) has been disturbed by previous logging and/or road-building activities. Small-scale mining has taken place in the past and rights exist to operate two small mines for gold and wolfram. Limestone is extracted from a quarry near Exit Cave. Darwin Quarry, just inside the western boundary, supplies rockfill for a dam project; strict conditions have been imposed on its operation to protect the wider environment. High wakes generated by high-speed tourist vessels, combined with the operation of the Middle Gordon Power Station, have created an erosion problem on the Lower Gordon River. The condition of three unique meromictic lakes beside the Gordon River is also affected by the Middle Gordon Power Scheme and only one of these now retains the condition. An improved management regime is being investigated. Erosion of walking tracks and damage to vegetation from trampling are localised and of low impact. Root rot fungus Phytophthora cinnamomi, which selectively affects tree and shrub species, is widespread along some access routes. Possible mineral exploitation and mining in the Jane River gold field and Oakleigh Creek wolfram mine would affect wilderness and conservation values.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

The Tasmanian Wilderness nomination, as presented by the Government of Australia, provides the following justification for designation as a World Heritage property:

a) Cultural property

(iii,v) Past civilisations and cultures under threat. A suite of Pleistocene archaeological sites provide evidence of an Ice Age society. Holocene aboriginal sites within a landscape largely unmodified by European settlement provide a unique record of coastal adaptations of aborigines. These sites would be vulnerable under the impact of development.

(vi) Events, ideas or beliefs. Pleistocene rock art, as depicted in Judds Cavern, adds an important cultural dimension to the understanding of an Ice Age society.

b) Natural property

- (i) Earth's evolutionary history. Rock formations, glacial deposits, extraglacial processes and glacio-karst landforms provide a valuable record of major stages in the earth's evolutionary history. Primitive relictual floral and faunal groups with strong New Zealand and Patagonian affinities provide living evidence of the previous existence of the southern supercontinent of Gondwana and its subsequent fragmentation.
- (ii) On-going geological and biological processes. Geomorphological and natural (including speciation) processes are occurring in a variety of undisturbed environments and, in some cases, provide benchmarks against which the effects of human activities elsewhere may be measured. Ecological succession from moorland to rain forest in the absence of fire is in itself a significant process of outstanding importance.
- (iii) Exceptional natural beauty. Geological and glacial events, climatic patterns and aboriginal occupation have combined to produce an exceptional landscape, renowned for its high wilderness qualities. Tall eucalypt forests, maintained by fire, give way to the last great temperate rain forest remaining in Australia. Other features include a spectacular coastline and unique karst formations.
- (iv) Habitats of rare and threatened species. Provides significant habitat for numerous rare or threatened species, many of which are endemic.

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WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

507 TASMANIAN WILDERNESS (AUSTRALIA)

1. DOCUMENTATION

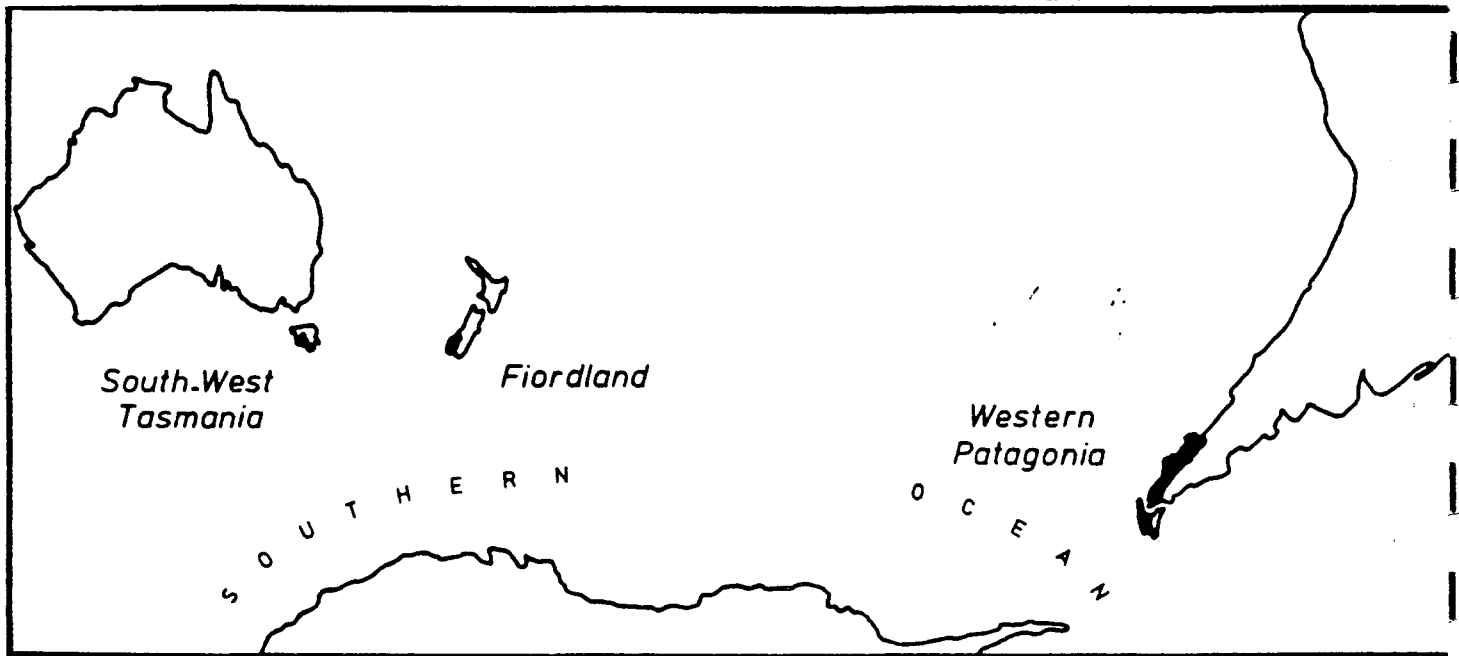
- i) IUCN Data Sheet (including reference list); original nomination of 1981
- ii) Consultations: Commonwealth and Tasmania State Government Officials, P. Hitchcock, J. Kirkpatrick, G. Mosely, R. Davidson (National Trust), ACIUCN, P. Toyne (ACF), A. Graham (TWS), G. Stankey, M. Chilcott, H. Eidsvik
- iii) Additional literature consulted: Australian Heritage Commission 1987. "World Heritage Value of the Southern Forests and Other Areas Associated with the Existing World Heritage Area"; D. Nelson 1982. "Southern Trilogy", Wilderness, (18), December
- iv) Site Visits: Jim Thorsell. January 1987 and February 1989.

2. COMPARISON WITH OTHER AREAS

As with any island, Tasmania has special natural qualities found nowhere else. In the Tasmanian Wilderness these qualities are a mix of biophysical and cultural values set in a nature-dominant landscape of high value for science and conservation. Within Tasmania it is certainly unique as there is no other part of the island with the same concentration of natural features and wild landscape. The nominated area is one of the five largest conservation units in Australia. It has a number of species affinities with the eastern sclerophyll and eastern grassland biogeographic provinces of mainland Australia but, because of its special character, it is given its own separate province. Its glacial history and scenic aspects have many similarities with the "Australian Alps" but those found in the Tasmanian Wilderness are of greater variety and are more pronounced and spectacular. Although pockets of cool temperate rainforest occur on the mainland, the nominated site contains the largest and most pristine tracts in all Australia. There is thus no other area in Australia with a similar combination of values relating to dramatic scenery, extensive coastal habitat, karst landscape, glacial features, wild rivers, lakes, alpine vegetation, tall temperate rainforest and almost 30 endemic wildlife species.

On a global scale, the Tasmanian Wilderness can be best compared with two other areas of temperate wildlands that occur between the 40th and 50th parallels in the Southern Ocean. These are the parks of Fiordland in New Zealand where a new nomination for a much expanded area has been received for review in 1990 and Los Glaciares in Argentina to which the adjacent contiguous parks in Chile may also eventually be added. All three of these areas are rugged glaciated mountainous regions situated in the path of strong westerly, moisture-laden winds. All three have national parks on the World Heritage list whose areal extent are being enlarged. The affinities between these widely-separated sites are reflected in the strong floristic links which originated with the existence of the southern super-continent of Gondwanaland. Before the continents began to drift apart, a number of plants had begun their evolution and a striking example of a genus common to these now widely

separated areas is the southern beech, Nothofagus. The Tasmanian Wilderness can be thus viewed as one part of a "trilogy" of three large natural World Heritage sites, each unique in many ways, but united in evolutionary history by the genus Nothofagus.



3. INTEGRITY

The nomination which was before the Bureau in June 1989 was a reformulation of the original site inscribed in 1982 which was 769,355 ha in size. The initial revision added an additional 261,960 ha bringing the total size of the property to 1,031,315 ha which represented a 34% increase. The areas added to that time corresponded to the recommendation of IUCN in the 1982 evaluation except for the Denison River/Prince of Wales Range/Spires Range which remained in the enclave referred to as the "hole in the doughnut". However, the September 1989 revision incorporates not only the "hole in the doughnut" but additional areas which add further features of importance and, by adopting some more natural boundaries, enhance the nominated site significantly. In area, the revision adds another 604,645ha to the nomination bringing it to 1,374,000ha, representing now a 78% increase on the area of the World Heritage site inscribed in 1982. Those new additions complement the existing site (1) by increasing the extent of protection of the essential wilderness quality; (2) by adding on the eastern boundary an extensive area of undisturbed tall open forest dominated by eucalypts (thus expanding the representation of a wide range of species including the Myrtaceae and the Epacridaceae, two of Australia's endemic families, as well as adding significant stands of southern conifers); (3) by adding the adjacent Walls of Jerusalem and the Central Plateau area (a very interesting and scenic glacial area with hundreds of rock basin lakes); and (4) by including a range of karst features and caves, many of which have evidence of early human occupation. All of these features are exceptional in their own right and greatly add to the overall natural value, wilderness quality and integrity of the site.

Further to the very large extension in size, there have been a number of other advances in management of the site over the past seven years. These include: (1) contributions from the Commonwealth of over \$A2 million a year to assist the State in strengthening management. These funds have assisted in improving access trails, conducting research, building a visitor centre and preparing management plans for certain components; (2) the establishment of advisory committees to provide advice on management issues; (3) institution of special regulations to control erosion damage by boat traffic on the Gordon River; and, most dramatically, (4) the cancellation of plans to proceed with the Gordon River hydro-electric power scheme. All of these activities represent positive actions to ensure that the high standards of management of World Heritage properties in Australia are maintained.

In terms of management arrangements, the State and Commonwealth have confirmed that the land declared as State Forest in the proposed World Heritage area will be proclaimed State Reserve. Consequently, direct administration and day-to-day management of the Tasmanian Wilderness will be by the Tasmanian Department of Lands, Parks and Wildlife as is the case with the existing site. Other mechanisms in place now will also be extended to cover the new area. These include provisions for a Ministerial Council, a Standing Committee of Officials, and a Consultative Committee with representatives of voluntary community groups. The management of the site is thus unified under one agency which is complemented by an overlay of intergovernmental and public advisory and coordinating committees.

Outside the boundaries of the site, extractive forestry operations will occur outside the eastern boundary with clear-cutting, road-building activity, the possibility of fire escape, and reduction in visual quality and wilderness values. These will hopefully be minimised through careful management and through application of the Forestry Commission's "Forestry Practices Code". However, the adjustments to the eastern boundary of the site made in the September 1989 revision to better follow natural features reduces the potential problem. Specific suggestions for adjustments of the eastern boundary reviewed during the IUCN field inspection have now been incorporated.

Other suggestions made during the IUCN inspection has also been incorporated in the September 1989 revision. These cover the revision of the Central Plateau Protected Area and some areas to the west. The major omission, however, which has now been remedied was the Dennison-Spires/Maxwell River area comprising the northern and western portion of the "hole in the doughnut".

The September 1989 revision recognises the obvious need to accept that the Lake Gordon impoundment is such a major intrusion that it should be left out of the World Heritage site. Lake Pedder's impoundment is already in the site and this may appear as inconsistent with the exclusion of Lake Gordon. However, the Pedder impoundment is not subject to as large a drawdown as Lake Gordon and is not so desolate in appearance. From a management perspective it is also advantageous to have Pedder within the site and some have even suggested that its long term restoration as a natural lake should be considered.

The conclusions on the boundaries of the new property with its further revised boundaries, therefore, are that it is an immense improvement over the original and that the two governments concerned have essentially reached a conclusion which is highly satisfactory from the point of IUCN of greatly enhanced World Heritage site. Some new extensions to the west side of the site were not considered or field examined by IUCN and can be viewed as something of a bonus incorporating additional orange-bellied parrot habitat.

Only one small anomaly remains - a thumb of land which forms an enclave south of Hartz Mountains National Park. Timber values led to its exclusion but the area could be the subject of a minor modification to the boundary at some time in the future.

A final point affecting integrity pertains to small-scale mining operations that exist at several locations (Oakleigh Creek, Adamsfield, Melaleuca, and Jane River). They are all very marginal in nature and it is extremely unlikely that major deposits will be found. Their existence, however, along with the access to them, is inimical to the wilderness values of the site. It is hoped that their operations will gradually be phased out and restoration undertaken of the disturbed areas.

4. ADDITIONAL COMMENTS

Several secondary management issues are associated with the site but are not discussed in this evaluation as they are not considered as issues of concern to the Committee. These deal with the future of an area of land revoked from the Wild Rivers National Park in 1982, the operation of a limestone quarry near Exit Cave, and changes in the limnology of the meromictic lakes. It is also evident that the mix of land designations within the site may be excessive and that future administrations may wish to consolidate these.

It is also noted that the name of the site is being adjusted to the "Tasmanian Wilderness". It should be recognised, however, that not all the area in the site is wilderness and that there is other wilderness on the island. However, Map 11 of the nomination shows the preponderance of wilderness in the nominated area.

5. EVALUATION

In 1982, the Committee inscribed the site on the basis of it meeting all four natural plus cultural criteria. The addition of 604,645 ha to the site further adds to its values by including ecosystems (particularly tall eucalypt forest), and land system types (glacial landforms and karst) lacking in the original area. The new proposed boundary greatly improves the integrity of the original area, includes a substantial portion of the range of many rare species, and increases the extent of wilderness reservation. Along with the addition of these important values, the State and Commonwealth have cooperated to implement a more effective management regime.

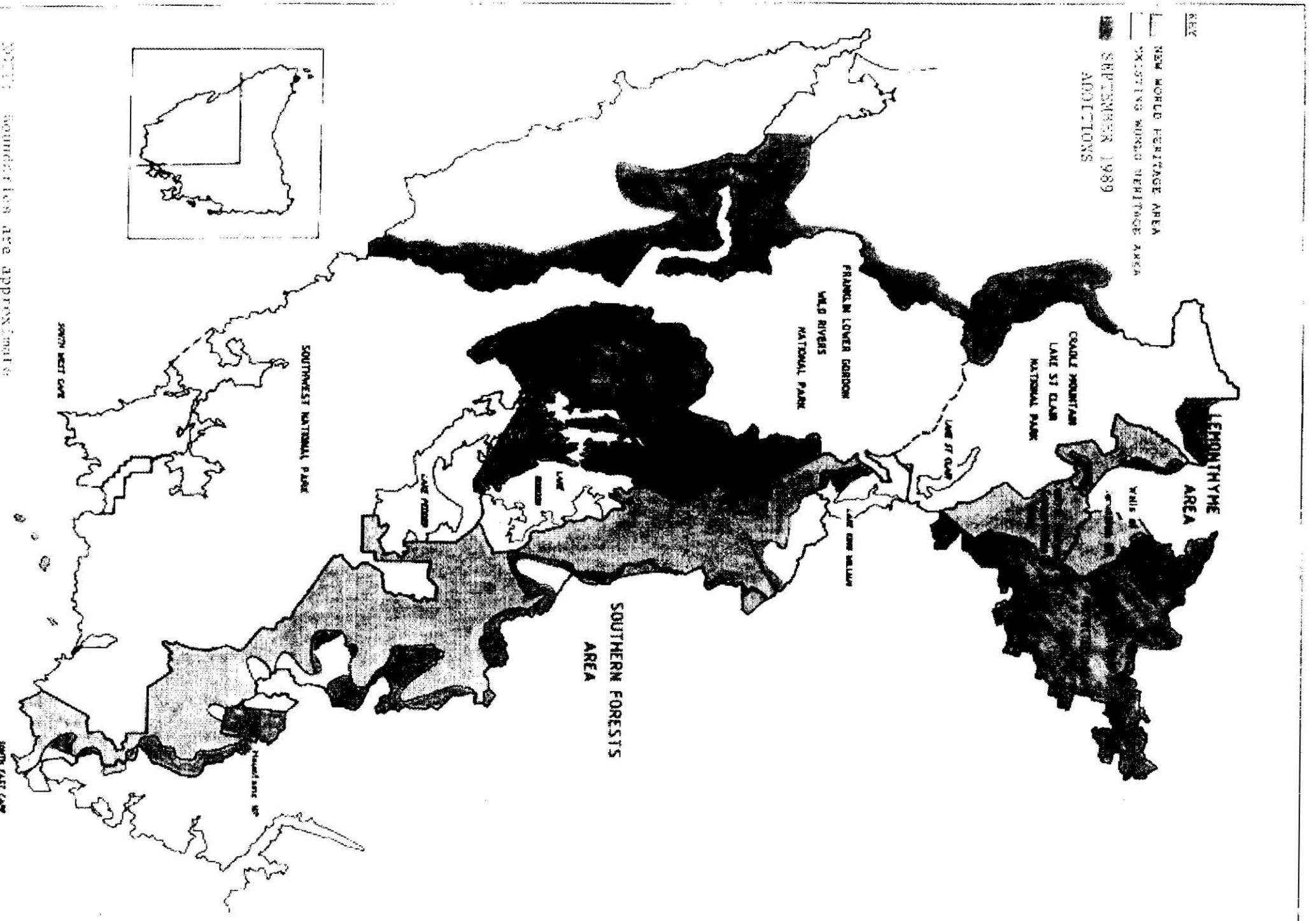
6. RECOMMENDATION

When the Bureau considered the IUCN recommendations in June, it noted with satisfaction the proposal to extend the existing World Heritage Site by adding an additional area of 261,960ha i.e. a 34% increase, then proposed. The Bureau concurred with the IUCN recommendation to further expand the additional nominated area to include the Denison/Spires/Maxwell River area plus a number of areas along the Eastern boundary of the then current extension and welcomed the declaration of the representative of Australia that this additional expansion would be submitted in September. The Bureau requested IUCN to complete its evaluation and ICOMOS to evaluate the cultural values of the full extended areas.

The consequence of the Australian Government's latest initiative (agreed with the Tasmanian Government) is that the boundaries of the property inscribed in 1982 as the "Western Tasmania Wilderness National Parks" have been substantially modified, consolidated and greatly enhanced in the latest (September) revision of the area nominated as the "Tasmanian Wilderness". The September revision fully meets the reservations indicated earlier by IUCN and expressed in the Bureau's recommendation. The site as set out in the September 1989 revision should therefore be inscribed on the World Heritage list on the basis of satisfying all four criteria for natural properties.

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KEY

NEW WORLD HERITAGE AREA

EXISTING WORLD HERITAGE AREA

SEPTEMBER 1989
ADDITIONS

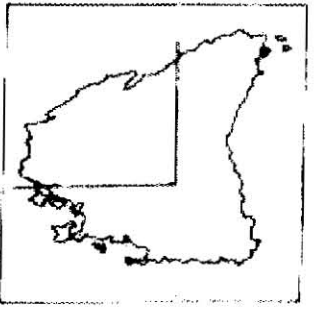
LEIHORNTHYME
AREA

COOLool MOUNTAIN
LANE ST CLAIR
NATIONAL PARK

FRANKLIN LOWER GORDON
WILD RIVERS
NATIONAL PARK

SOUTHERN FORESTS
AREA

SOUTHWEST NATIONAL PARK



SOUTH WEST COVE

NORTH EAST COVE