

Appendix 4

World Heritage Values of the Tasmanian Wilderness¹

1.1 Note that the Department of the Environment's website states that:

A draft Statement of Outstanding Universal Value which will take into account the new areas added in 2013 is expected to be considered by the World Heritage Committee in 2014.

Outstanding Universal Value

1.2 The Tasmanian Wilderness is an extensive, wild, beautiful temperate land where cultural heritage of the Tasmanian Aboriginal people is preserved.

1.3 It is one of the three largest temperate wilderness areas remaining in the Southern Hemisphere. The region is home to some of the deepest and longest caves in Australia. It is renowned for its diversity of flora, and some of the longest lived trees and tallest flowering plants in the world grow in the area. The Tasmanian Wilderness is a stronghold for several animals that are either extinct or threatened on mainland Australia.

1.4 In the southwest Aboriginal people developed a unique cultural tradition based on a specialized stone and bone toolkit that enabled the hunting and processing of a single prey species (Bennett's wallaby) that provided nearly all of their dietary protein and fat. Extensive limestone cave systems contain rock art sites that have been dated to the end of the Pleistocene period. Southwest Tasmanian Aboriginal artistic expression during the last Ice Age is only known from the dark recesses of limestone caves.

1.5 The Tasmanian Wilderness was inscribed on the World Heritage List in 1982 and extended in 1989, 2010, 2012 and again in 2013.

1.6 The world heritage criteria are periodically revised and the criteria against which the property was listed in 1982 and 1989 are not identical with the current criteria.

Criteria

Outstanding examples representing the major stages of the earth's evolutionary history.

1.7 The Tasmanian Wilderness is an outstanding example representing major stages of the earth's evolutionary history. The world heritage values include:

- geological, geomorphological and physiographic features, including:
 - rock formations including Precambrian rocks and Cambrian rocks;
 - Late Cambrian to Early Ordovician sequences of the Denison Range;

1 As set out at: Department of the Environment, *World Heritage Places – Tasmanian Wilderness – Values*, <http://www.environment.gov.au/node/34173> (accessed 26 March 2014).

- fossiliferous Ordovician limestone;
- Permian-Triassic sediments and associated Jurassic dolerite intrusions;
- Darwin Crater and Lake Edgar fault;
- karst systems including glacio-karstic features;
- karst geomorphology and karst hydrology;
- glaciation, including glacial deposits of the Late Cainozoic, Permo-Carboniferous and Precambrian;
- extraglacial areas (eg solifluction sheets, block streams, rock glaciers, landslip deposits);
- periglaciation (e.g. Mt Rufus, Frenchman's Cap);
- soils (e.g. peatlands); and
- undisturbed river systems which show particular geomorphological processes;
- relict biota which show links to ancient Gondwanan biota including:
 - endemic conifers (including the King Billy pine *Athrotaxis selaginoides*, the Huon pine *Lagarostrobos franklinii* and the genera *Diselma*, *Microcachrys*, *Microstrobos*);
 - plant species in the families Cunoniaceae, Escalloniaceae and Winteraceae;
 - the plant genera *Bellendena*, *Agastachys* and *Cenarrhenes* in the Proteaceae;
 - other plant genera with Gondwanan links (e.g. *Eucryphia*, *Orites*, *Lomatia* and *Nothofagus*);
 - monotremes (e.g. platypus *Ornithorhynchus anatinus*, short beaked echidna *Tachyglossus aculeatus*);
 - dasyurid species;
 - parrots (e.g. orange-bellied parrot and the ground parrot);
 - indigenous families of frogs with Gondwanan origins (e.g. Tasmanian froglet *Ranidella tasmaniensis*, brown froglet *Ranidella signifera*, Tasmanian tree frog *Litoria burrowsi*, brown tree frog *Litoria ewingi*);
 - invertebrate species in the genera *Euperipatoides* and *Ooperipatellus*;
 - the Tasmanian cave spider (*Hickmania troglodytes*);
 - aquatic insect groups with close affinities to groups found in South America, New Zealand and Southern Africa (e.g. dragonflies, chironomid midges, stoneflies, mayflies and caddisflies);
 - crustaceans (e.g. *Anaspidacea*, *Parastacidae*, *Phreatoicidae*);
 - primitive taxa showing links to fauna more ancient than Gondwana (e.g. Anaspids, *Trogloneta* (a mysmenid spider), species of alpine moths in the

subfamily Archiearinae, species in the genus *Sabatinca* of the primitive lepidopteran sub-order Zeugloptera).

Outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment.

1.8 The Tasmanian Wilderness has outstanding examples representing significant ongoing geological processes and ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water and coastal ecosystems and communities, including:

- sites where processes of geomorphological and hydrological evolution are continuing in an uninterrupted natural condition (including karst formation, periglaciation which is continuing on some higher summits (e.g. on the Boomerang, Mount La Perouse, Mount Rufus, Frenchmans Cap), fluvial deposition, evolution of spectacular gorges, marine and aeolian deposition and erosion, and development of peat soils and blanket bogs);
- ecosystems which are relatively free of introduced plant and animal species;
- coastal plant communities free of exotic sand binding grasses which show natural processes of dune formation and erosion;
- undisturbed catchments, lakes and streams;
- alpine ecosystems with high levels of endemism;
- the unusual 'cushion plants' (bolster heaths) of the alpine ecosystems;
- ecological transitions from moorland to rainforest;
- pristine tall eucalypt forests;
- examples of active speciation in the genus *Eucalyptus*, including sites of:
 - hybridisation and introgression;
 - clinal variation (e.g. *E. subcrenulata*);
 - habitat selection (e.g. *E. gunnii*); and
 - transition zones which include genetic exchanges between *Eucalyptus* species;
- plant groups in which speciation is active (e.g. *Gonocarpus*, *Ranunculus* and *Plantago*);
- conifers of extreme longevity (including Huon pine, Pencil pine and King Billy pine);
- endemic members of large Australian plant families (e.g. heaths such as *Richea pandanifolia*, *Richea scoparia*, *Dracophyllum minimum* and *prionotes cerinthoides*);
- endemic members of invertebrate groups;

- invertebrate species in isolated environments, especially mountain peaks, offshore islands and caves with high levels of genetic and phenotypic variation;
- invertebrates of unusually large size (e.g. the giant pandini moth - *Proditrix* sp, several species of Neanuridae, the brightly coloured stonefly - *Eusthenia spectabilis*);
- invertebrate groups which show extraordinary diversity (e.g. land flatworms, large amphipods, peripatus, stag beetles, stoneflies);
- skinks in the genus *Leiopisma* which demonstrate adaptive radiation in alpine heaths and boulder fields on mountain ranges;
- examples of evolution in mainland mammals (e.g. sub-species of Bennett's wallaby - *Macropus rufogriseus*, swamp antechinus - *Antechinus minimus*, southern brown bandicoot - *Isodon obesulus*, common wombat - *Vombatus ursinus*, common ringtail possum - *Pseudocheirus peregrinus*, common brushtail possum - *Trichosurus vulpecula*, eastern pygmy possum - *Cercartetus nanus*, the swamp rat - *Rattus lutreolus*) in many birds (e.g. the azure kingfisher - *Alcedo azurea*) and in island faunas;
- animal and bird species whose habitat elsewhere is under threat (e.g. the spotted-tail quoll *Dasyurus maculatus*, swamp antechinus *Antechinus minimus*, broad-toothed rat - *Mastacomys fuscus* and the ground parrot - *Pezoporus wallicus*); and
- the diversity of plant and animal species.

Contains superlative natural phenomena, formations or features, for instance outstanding examples of the most important ecosystems, areas of exceptional natural beauty or exceptional combinations of natural and cultural elements.

1.9 The landscape of the Tasmanian Wilderness has exceptional natural beauty and aesthetic importance and contains superlative natural phenomena including:

- viewfields and sites of exceptional natural beauty associated with:
 - flowering heaths of the coastline;
 - the south and south-west coasts comprising steep headlands interspersed with sweeping beaches, rocky coves and secluded inlets;
 - eucalypt tall open forests including *Eucalyptus regnans*, the tallest flowering plant species in the world;
 - rainforests framing undisturbed rivers;
 - buttongrass, heath and moorland extending over vast plains;
 - wind-pruned alpine vegetation;
 - sheer quartzite or dolerite capped mountains (including Cradle Mountain, Frenchmans Cap, Federation Peak and Precipitous Bluff);
 - deep, glacial lakes, tarns, cirques and pools throughout the ranges;

- the relatively undisturbed nature of the property;
- the scale of the undisturbed landscapes;
- the juxtaposition of different landscapes;
- the presence of unusual natural formations (e.g. particular types of karst features) and superlative examples of glacial landforms and other types of geomorphic features; and
- rare or unusual flora and fauna.

Contain the most important and significant habitats where threatened species of plants and animals of outstanding universal value from the point of view of science and conservation still survive.

1.10 The ecosystems of the Tasmanian Wilderness contain important and significant natural habitats where threatened species of animals and plants of outstanding universal value from the point of view of science and conservation still survive, including:

- habitats important for endemic plant and animal taxa and taxa of conservation significance, including:
 - rainforest communities;
 - alpine communities;
 - moorlands (e.g. in the far south-west);
 - riparian and lacustrine communities (including meromictic lakes).
 - habitats which are relatively undisturbed and of sufficient size to enable survival of taxa of conservation significance including endemic taxa;
 - plant species of conservation significance
 - animal species of conservation significance, such as:
 - spotted-tail quoll *Dasyurus maculatus*;
 - swamp antechinus *Antechinus minimus*
 - broad-toothed rat *Mastacomys fuscus*
 - ground parrot *Pezoporus wallicus*
 - orange-bellied parrot *Neophema chrysogaster*
 - Lake Pedder galaxias *Galaxias pedderensis*
 - Pedra Branka skink *Niveoscincus palfreymani*.

Bear a unique or at least exceptional testimony to a civilisation which has disappeared.

1.11 The Tasmanian Wilderness bears a unique and exceptional testimony to an ancient, ice age society, represented by:

- Pleistocene archaeological sites that are unique, of great antiquity and exceptional in nature, demonstrating the sequence of human occupation at high southern latitudes during the last ice age.

An outstanding example of a traditional human settlement which is representative of a culture which has become vulnerable under the impact of irreversible change.

1.12 The Tasmanian Wilderness provides outstanding examples of a significant, traditional human settlement that has become vulnerable under the impact of irreversible socio-cultural or economic change. The world heritage values include:

- archaeological sites which provide important examples of the hunting and gathering way of life, showing how people practised this way of life over long time periods, during often extreme climatic conditions and in contexts where it came under the impact of irreversible socio-cultural and economic change.

Directly or tangibly associated with events or with ideas or beliefs of outstanding universal significance.

1.13 The Tasmanian Wilderness is directly associated with events of outstanding universal significance linked to the adaptation and survival of human societies to glacial climatic cycles. The world heritage values include:

- archaeological sites including Pleistocene sites, which demonstrate the adaptation and survival of human societies to glacial climatic cycles and periods of long isolation from other communities (e.g. the human societies in this region were the most southerly known peoples on earth during the last ice age).