

World Heritage and Wilderness



A brief for the 10th World Wilderness Congress (WILD10)

WILD10 provides an excellent opportunity to begin assessing the potential for the World Heritage Convention to contribute to wilderness conservation around the world. This brief¹ provides a starting point for further discussions to be had on wilderness and World Heritage at WILD10, and leading up to the IUCN World Parks Congress in 2014.

World Heritage

The World Heritage Convention seeks to identify and conserve natural and cultural heritage of outstanding universal value. As of October 2013, the World Heritage List includes 222 natural World Heritage sites, 29 of which are also listed for their cultural values ('mixed sites'). Together, these 222 sites protect almost 2.8 million square kilometers of land and sea, an area the size of Argentina. Natural World Heritage sites are evaluated against criteria that include exceptional natural beauty and outstanding earth science or biodiversity values. IUCN is the advisory body to the World Heritage Committee on natural heritage and has been supporting the identification and evaluation of new nominations and the monitoring and effective management of existing sites since the Convention was adopted in 1972.

What is wilderness?

Various definitions of wilderness exist. For example, The WILD Foundation defines wilderness areas broadly as the most intact, undisturbed wild natural areas left on our planet². Wilderness areas provide many benefits for the planet and its peoples. They help regulate the climate, support many species and ecosystems, and provide people with fundamental ecosystem services such as water, food, fuel and medicines. They are places for humans to interact with wild nature for their physical, mental and spiritual health.

Many attempts have been made to map such areas globally. Here we assess the overlap of natural World Heritage sites with the 24 wilderness areas defined by Mittermeier *et al.* (2003)³ to highlight the importance and potential of the World Heritage Convention for wilderness conservation. These wilderness areas are large (≥10,000 km² each), sparsely populated (≤5 people per km²) and relatively intact (≥70% of primary habitat remaining). They include tropical, temperate and boreal forests, mountains, tundra, deserts and wetland areas (see Figure 1 overleaf). Together, the 24 wilderness areas cover 52% of the Earth's land area, and hold c. 3% of the total human population. Five 'high-biodiversity wilderness areas'⁴ hold 17% of the world's vascular plant species and 8% of the world's terrestrial vertebrate species as endemics.

World Heritage and wilderness facts

Our initial analysis of the overlap of natural World Heritage sites (WHS) with the 24 wilderness areas shows:

Wilderness areas make up 62% of all the land area in natural World Heritage sites.

- 61 (27%) of the 222 natural WHS overlap with one or more of the wilderness areas (Figure 1 overleaf). The 61 sites are hereafter referred to as 'wilderness WHS'.
- The size of the 61 sites varies from 1 km² to 0.1 million km² with a mean wilderness area of 13,851 km² and a median wilderness area of 5,847 km² per site.
- Over 0.8 million km² (62%) of all the land area in natural WHS falls into wilderness areas.
 The largest number and area of wilderness WHS can be found in Africa, North America,
 Latin America and the Caribbean, and Europe (Figure 2 overleaf).
- The ten largest wilderness WHS make up 61% of the total wilderness area in natural WHS (Table 1 overleaf). The twenty largest make up 81% of the 0.8 million km².
- 52 (85%) of the 61 wilderness WHS are inscribed on the World Heritage List under more than one natural criterion (sometimes also in combination with cultural criteria) and 45 (74%) of the 61 sites are inscribed under the 'biodiversity criteria' (ix) and/or (x).
- The 'ecosystem criterion' (ix) has been applied to 39 wilderness WHS, the 'species criterion' (x) to 36 sites, and the natural beauty criterion (vii) to 38 sites. 20 of the 61 wilderness WHS overlap with high-biodiversity wilderness areas.

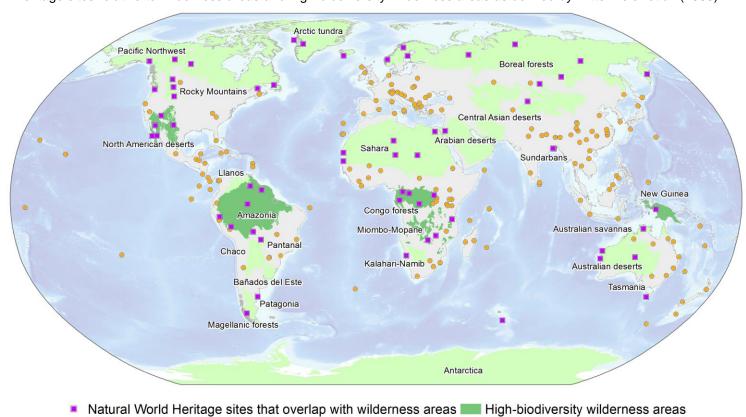
¹ Prepared by Bastian Bertzky and Yichuan Shi with input from Tim Badman, Cyril Kormos and Tilman Jaeger.

http://www.wild.org/main/how-wild-works/policy-research/what-is-a-wilderness-area/

³ Mittermeier, R.A. et al. (2003) Wilderness and biodiversity conservation. PNAS 100 (18): 10309-10313.

⁴ Each holding ≥0.5% of the world's vascular plant species as endemics.

Figure 1. Distribution of the 61 wilderness World Heritage sites (purple squares) and 161 other natural and mixed World Heritage sites relative to wilderness areas and high-biodiversity wilderness areas as defined by Mittermeier et al. (2003).



- Other natural World Heritage sites

Other wilderness areas

Figure 2. Total number and wilderness area (size of slice) of wilderness World Heritage sites by region.

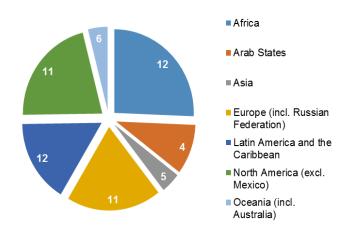


Table 1. The ten largest wilderness World Heritage sites (based on land area that falls into wilderness areas).

Site	Country	Criteria	Wilderness area (km²)
Kluane / Wrangell-St	United	(vii)(viii)(ix)(x)	82,951
Elias / Glacier Bay /	States and		
Tatshenshini-Alsek	Canada		
Air and Ténéré Natural	Niger	(vii)(ix)(x)	78,696
Reserves			
Tassili n'Ajjer	Algeria	(i)(iii)(vii)(viii)	75,713
Central Amazon	Brazil	(ix)(x)	51,313
Conservation Complex			
Wood Buffalo National	Canada	(vii)(ix)(x)	44,607
Park			
Lake Baikal	Russian	(vii)(viii)(ix)(x)	41,852
	Federation		
Volcanoes of Kamchatka	Russian	(vii)(viii)(ix)(x)	37,979
	Federation		
Selous Game Reserve	Tanzania	(ix)(x)	37,380
Salonga National Park	DR Congo	(vii)(ix)	35,322
Virgin Komi Forests	Russian	(vii)(ix)	28,703
	Federation		

Concluding remarks

This initial analysis highlights the importance and potential of the World Heritage Convention for wilderness conservation. At present the World Heritage List includes at least 61 natural and mixed sites that contain wilderness areas. Overall, 22 of the world's 24 terrestrial wilderness areas are represented on the List, including all high-biodiversity wilderness areas. This analysis did not consider marine wilderness areas. However, it should be noted that the Convention does not apply to vast wilderness areas such as the high seas, or mainland Antarctica. IUCN is planning to launch a more comprehensive study on wilderness World Heritage at the IUCN World Parks Congress in 2014. Please contact Tim Badman (tim.badman@iucn.org) or Cyril Kormos (cyril@wild.org) for more information.







