International Appalachian Trail bridges Atlantic divide

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Caledonia and Appalachia – neighbours on ancient continents, together in continental collisions that created great mountain ranges, separated by the opening of the Atlantic Ocean, brought back together by the International Appalachian Trail – a shared geological and cultural heritage

Throughout human history, geodiversity has determined the location of settlements, trade routes, and human migratory paths, inextricably linking our culture to the geological foundations of our landscapes. The International Appalachian Trail (IAT) celebrates our common geoheritage by establishing a long-distance walking trail that extends beyond borders and jurisdictions to all regions once connected by the 'Appalachian -Caledonian' mountain range, formed more than 300 million years ago on the super-continent Pangaea. In addition to connecting people and place, the aim of the IAT is to promote natural and cultural heritage, environmental stewardship, health and fitness, fellowship and understanding, cross-border co-operation, and rural economic development through ecotourism and geotourism.

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North Atlantic Appalachian – Caledonian domains (in yellow) span 11 countries.

The IAT is the longest network of walking trails in the world with an estimated 12,000 miles of trail along the ancient Appalachian – Caledonian terranes in 11 countries around the North Atlantic. These include the USA, Canada, Greenland, Iceland, Norway, United Kingdom (including Scotland, England, Wales and Northern Ireland), Isle of Man (British Crown dependency), Ireland, France, Spain, Portugal and Morocco.

The project began in 1994 when visionary Maine conservationist Richard 'Dick' Anderson had the inspired idea to create a hiking trail that followed the Appalachian Mountains, beyond borders, from Maine's Katahdin to Mont Carleton in New Brunswick and then on to Mount Jacques Cartier in Quebec's Gaspé Peninsula. With the support of like-minded conservationists such as Don Hudson of the Chewonki Foundation and Walter Anderson of the Maine Geological Survey, the idea was soon adopted by former Maine Governor Joseph E. Brennan and interested parties in New Brunswick and Quebec, followed by others in Newfoundland, Nova Scotia and Prince Edward Island.

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Maine conservationist Dick Anderson (right) had the idea of stretching the trail beyond borders. He is with Maine Governor Joe Brennan. Photo © IAT



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In June 2009, the British Geological Survey in Edinburgh invited IAT representatives from Maine and Newfoundland and Labrador to visit the British Isles to explore interest in extending the IAT to the Caledonian terrains of Scotland, Ireland, Northern Ireland and Wales. This visit led to Scotland becoming the first European Chapter of the IAT, with the 96-mile West Highland Way, one of Scotland's official long-distance routes, becoming the first IAT Scotland route officially welcomed during the grand opening of the Appalachian Trail Museum in Pine Grove State Park, Pennsylvania on June 5, 2010. The following year the Firth o Clyde Rotary Trail and the Cape Wrath Trail joined the IAT Scotland family to complete an adventurous 470-mile route between the Mull of Galloway and Cape Wrath in north-west Sutherland.

The first IAT Chapter outside North America was formed in Greenland in April 2010, with a route in the Nuussuaq Peninsula of Western Greenland. The IAT now also includes representative trails across Ireland and Britain, from Slieve League to the Ulster Way, English and Welsh National Trails, the Wales Coast Path and Isle of Man's Raad ny Foillan. There are also IAT-designated trails in Scandinavia, Iceland, Spain,

Portugal and most recently Morocco. IAT Scotland and IAT England are now working on linking trails across the border – this may include linking the Firth o Clyde Rotary Trail to the Southern Upland Way, St Cuthbert's Way and the Pennine Way.



The West Highland Way is officially welcomed during the grand opening of the Appalachian Trail Museum in Pine Grove State Park, Pennsylvania in June, 2010. Photo © IAT

Outside North America

Reykjavik, Iceland was the location of the IAT's first annual meeting outside North America, in 2012. In 2013, the IAT annual meeting was held in the Loch Lomond and The Trossachs National Park. En route to this meeting a small North American IAT delegation visited Dunbar to pay tribute to that great Scottish American conservationist John Muir, and to Siccar Point to pay homage to James Hutton, the founder of modern geological science. The 2014 IAT annual meeting was held in Plymouth, Devon, where keynote speaker Iain Stewart presented '50 Shades of Grey', or how to inspire the lay public with geology. The nearby South West Coast Path National Trail and IAT England route passes through the English Riviera Geopark and highlights the growing opportunities for co-operation on geotourism development between

In Scotland, the West Highland Way and Cape Wrath Trail pass through the North West Highlands Geopark and Lochaber aspiring Geopark. In northern England, the Pennine Way traverses the North Pennines Geopark and, in Wales, the Wales Coast Path allows access to 90% of Anglesey's geological highlights in GeoMôn Anglesey Geopark. Elsewhere in Europe, IAT Portugal route Grande Roto Do Muradal-Pangeia lies within the Naturtejo Geopark.

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geoparks and IAT trails.

North American IAT representatives descending Ben Nevis via the Carn Mòr Dearg arête at the northern end of the West Highland Way, one of three IAT Scotland trails. Photo by Hugh Barron



IAT delegates from Europe and North America symbolically bridge the North Atlantic Rift in the Pingvellir National Park, Iceland in June 2012. Photo by Hugh Barron





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Canada links geology to natural, built and cultural heritage

In Canada, IAT Newfoundland and Labrador (IATNL) is planning to establish the Cabox Geopark in Western Newfoundland, spanning the Bay of Islands Ophiolites from Lewis Hills to Tablelands in Gros Morne National Park, which also hosts the Global Stratotype for the Cambrian–Ordovician boundary at Green Point. With the Cabox Aspiring Geopark, IATNL is a partner in the EU Interreg VB Northern Periphery Programme's 'Drifting Apart' project which aims to 'unearth and strengthen the understanding, appreciation and enjoyment of the fascinating and interconnected geological heritage of the Northern Periphery region, and its many links to natural, built and cultural heritage'.

The project will support the development of new and aspiring Global Geoparks (see following article), promote innovative products and services to encourage social and economic prosperity across the Northern Periphery Region and continue to strengthen the network of Northern Periphery Global Geoparks.

Other partners in the project include the Geological Survey of Northern Ireland, the Geological Survey of Ireland, the North West Highlands Geopark, Lochaber Geopark, Geopark Shetland, and other geoparks and aspiring geoparks and national parks in Ireland, Canada, Iceland, Norway and Russia.

The geodiversity of the IAT trails offers a journey through time, insight into Earth's geological history, and an understanding of past and present social and economic development.

The IAT also offers great opportunities to develop new economic opportunities, enhance culture and sense of pride in place, and conserve historical links between Appalachian and Caledonian terranes on either side of the North Atlantic. Earth scientists can use the IAT to provide an excellent opportunity to participate in this unique recreational/educational project and to engage the public in a discussion of the geological foundations of modern society.

The Atlantic Ocean may have been dividing us for eons, but the International Appalachian Trail is well on its way to bringing us back together! For more information on the IAT, go to www.iat-sia.org.

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Peridotite and gabbro landscape of the Bay of Islands ophiolite complex, IATNL Blow-Me-Down Mountain Trail, Western Newfoundland Photo by Hugh Barron

Katahdin (1,606 m), an exhumed Acadian granite pluton in the Baxter State Park, Maine, is the location of the southern terminus of the IAT in North America. Photo by Bill Duffy



