



SOME AREAS OF THE PLANET EXHIBIT AN INCREDIBLE QUANTITY AND **DIVERSITY OF PLANTS, WITH MANY UNIQUE SPECIES. BUT MANY OF** THESE AREAS ARE DEGRADING OR DISAPPEARING ENTIRELY UNDER THE ASSAULT OF INGREASING THREATS. INCLUDING LAND-USE CHANGE, CLIMATE **CHANGE, PESTS AND DISEASES.** 

With resources to safeguard plant diversity so scarce, the race is on to identify sites that are in most urgent need of conservation.

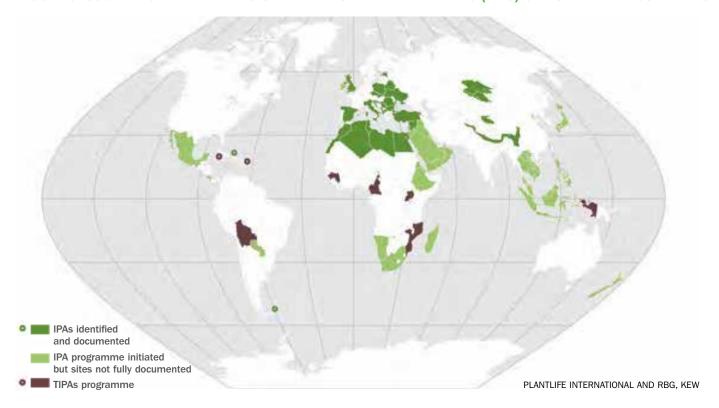
Important Plant Areas (IPAs) is a scheme that determines priority sites by using three key measures of importance: threatened species; exceptional botanical richness; and threatened habitats [35]. The IPA process enables national and regional experts to identify their key sites in order to promote effective conservation planning and site safeguarding, using practical but scientifically rigorous criteria. Within the revised criteria being launched in 2016, IPA identification also takes into account socio-economically and culturally important plants, both as a measure of botanical richness and as a way of engaging the communities who live and work within IPAs in their long-term conservation and sustainable management. IPAs are formally recognised as a conservation tool under Target 5 of the Convention on Biological Diversity (CBD) Global Strategy for Plant Conservation [36].

Plantlife International (PI) were instrumental in establishing the IPA criteria in the early 2000s. PI has helped to designate over 1,750 IPAs in 16 countries across Europe, North Africa and the Middle East [37-39] (see Box 1: IPAs in the UK). PI are currently working with national partners in Europe, especially in the Balkans, to engage communities and decision-makers in valuing and conserving their IPAs. Significant progress has also been made globally. with 69 countries having undertaken at least an initial assessment of their IPAs [38], but a clear gap remains in tropical regions (see Figure 8). In response to this, Kew has launched the first ever IPA campaign focusing entirely on the tropics. The Tropical Important Plant Areas (TIPA) programme (RBG Kew 2016; http://science.kew.org/strategic-output/ tropical-important-plant-areas) is committed to identifying IPAs in seven tropical countries or regions in its first phase: Bolivia, Cameroon, Guinea, Indonesian New Guinea, Mozambique. Uganda and the Caribbean UK Overseas Territories (see Box 1: TIPAs in Guinea).

Beyond site recognition, the most pressing need is to move towards protection and/or sustainable management of IPAs. One in four European IPAs currently has no legal protection, many have no active management plan and a significant number are imminently threatened [38]. Monitoring and management of IPA sites outside of protected areas will ultimately rely on local networks, and it is therefore imperative that local communities and authorities are invested in IPA programmes from the outset (see Box 1: IPAs in Turkey).

National IPA initiatives will also play an important role in contributing plant data to the International Union for Conservation of Nature (IUCN)'s Key Biodiversity Areas (KBAs) initiative, which aims to identify sites that contribute significantly to the global persistence of biodiversity.

FIGURE 8: COUNTRIES THAT HAVE DESIGNATED IMPORTANT PLANT AREAS (IPAS) OR ACTIVE IPA PROGRAMMES



## **BOX 1: EXAMPLES OF IMPORTANT PLANT AREAS**

## **TROPICAL IPAS (TIPAS) IN GUINEA**

Guinea has the highest plant species diversity in West Africa (Schnell, cited in [40]), with many rare and unique species and genera that are increasingly threatened by habitat loss and degradation. In 2015, Kew and the UGAN-Herbier National de Guinée initiated the first IPA programme in tropical West Africa, twinned with a Plant Red Listing project [41]. Strong links have been developed with the government's Ministry of Environment, Water and Forests, who are keen to use data on Guinea's threatened species and habitats to inform strategies to expand protected areas. Through partnering with Guinée Ecologie, a non-governmental organization (NGO) which specialises in community outreach, the project will also promote community-led management of IPAs that fall outside formal protection areas. Through this work, the partners hope to secure the future for such remarkable and rare species as Pitcairnia feliciana, the only bromeliad (pineapple family) native outside the Americas, which is restricted to a small corner of Guinea, and the mass-flowering forest herbs Brachystephanus oreacanthus and Isoglossa dispersa, both assessed as globally vulnerable in 2014 [42].



## **IPAS IN THE UK**

The UK has very few endemic species, but it does have globally important habitats such as the Atlantic woodlands and Celtic Rainforests. As a result of this, 165 IPAs have been identified in the UK from Caithness to Cornwall [43]. They include the Lizard in Cornwall, the Brecklands of East Anglia, The Great Orme in North Wales, the wetlands of Caithness and the largest UK IPA - the West Coast IPA in Scotland.

IPA identification is also being undertaken in several United Kingdom Overseas Territories (UKOTs). In the Falkland Islands, for example, the 17 IPAs identified in 2007 by Falklands Conservation [44] are being incorporated into the Falkland Islands Government's Biodiversity Strategy. In the Caribbean, Kew and the National Parks Trust of the Virgin Islands have just secured funding to run a programme of IPA identification on the British Virgin Islands.



## **IPAS IN TURKEY**

Turkey was the first country in the world to identify its IPAs through the collaboration of 40 scientists from 20 universities and the support of WWF Turkey, Flora and Fauna International, and the University of Istanbul [45]. Turkey has one of the richest floras in the temperate world with at least 8,897 native vascular plant species, including 3,022 endemics. These globally important species and habitats continue to face the familiar threats of habitat fragmentation, landscape change and lack of awareness of their importance. By the early 2000s, the Turkish team had identified 122 IPAs and had assessed the threats to each site as moderate, urgent or critical. More recently, the Rubicon Foundation in the Netherlands has helped to set up a network of IPA volunteers who undertake site and species monitoring and raise awareness of the importance of these sites [46].

